United States Court of Appeals

for the

District of Columbia Circuit

TRANSCRIPT OF RECORD

United States Court of Appeals for the District of Columbia

JANUARY TERM, 1941.

No. 7806

THE AKRON STANDARD MOLD COMPANY, AND
HENRY C. BOSTWICK, APPELLANTS,

vs.

CONWAY P. COE, COMMISSIONER OF PATENTS,
APPELLEE.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR
THE DISTRICT OF COLUMBIA.

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United States Court of Appeals for the District of Columbia

A. District Court of the United States for the District of Columbia

CIVIL ACTION No. 6629

THE AKRON STANDARD MOLD COMPANY, and HENRY C. BOSTWICK, *Plaintiffs*

—vs—

CONWAY P. COE Commissioner of Patents *Defendant*

UNITED STATES OF AMERICA,
District of Columbia, ss:

BE IT REMEMBERED, that in the District Court of the United States for the District of Columbia, at the City of Washington, in said District, at the times hereinafter mentioned, the following papers were filed and proceedings had, in the above-entitled cause, to wit:

1 Endorsed: Filed Apr 17 1940 Charles E. Stewart, Clerk

District Court of the United States for the District of Columbia

Bill to Compel Issuance of Patent

CIVIL ACTION No. 6629

THE AKRON STANDARD MOLD COMPANY, Akron, Ohio, and HENRY C. BOSTWICK, c/o The Akron Standard Mold Company, Akron, Ohio *Plaintiffs*

—vs—

CONWAY P. COE Commissioner of Patents *Defendant*

Complaint

The plaintiff states:

1. The plaintiff, Henry C. Bostwick is a citizen of the United States and a resident of Akron, in the County of

Summit and State of Ohio, and the applicant of U. S. Patent Application, Serial No. 145,241 for a Toggle Press filed by him May 28, 1937.

2. The plaintiff, The Akron Standard Mold Company, is a corporation organized and existing under the laws of the State of Ohio and having a principal place of business at Akron, in the County of Summit and State of Ohio, and is the assignee of the entire right, title and interest of said Henry C. Bostwick of said United States Patent Application.

3. The defendant, Conway P. Coe, is the Commissioner of Patents of the United States, a legal resident of the District of Columbia and is sued as Commissioner of Patents of the United States.

4. This Complaint is filed in accordance with the provision of the laws of the United States as provided for under Revised Statute 4915.

2 5. The said application of Henry C. Bostwick was filed in accordance with the laws of the United States and the rules of the Patent Office.

6. The said application has been duly prosecuted in accordance with the laws of the United States and the rules of the Patent Office.

7. The said application has been passed upon by the Primary Examiner, who allowed seven claims (designated 7, 16, 17, 20, 21, 24 and 25), but refused to allow four claims (designated 22, 23, 26 and 27), reading as follows:

22. In a press, the combination of a frame, an upper press head carried by the frame, and a lower press head movable with respect to the upper head, a pair of toggle members pivotally connected to the lower head and to the frame respectively, and each having an intermediate pivot, a screw shaft pivotally connected to one of the intermediate pivots, a motor pivotally supported on the frame, gearing operatively connecting the motor to the screw shaft, a system of linkage including, a member connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle for connecting the intermediate pivots together so as to cause movement of them in timed relationship to the movement of the lower head, and guiding means for the lower head, said means including a cam slot in the frame and a member connected to the lower head and co-

acting with the cam slot in the frame to impart a shifting and tilting movement of the head during the opening and closing operation of the press.

23. In a press, the combination of a frame, an upper press head and a lower press head mounted for reciprocal and tilting movement within the frame, a pair of toggle devices operatively connecting the frame to the lower head, each of said toggles having an intermediate pivot thereon, a motor support having trunnions journaled in the frame, a screw shaft journalled in the support, gearing operatively connecting the motor to the screw shaft, one end of the screw shaft being operatively connected to the intermediate pair of pivots of one of said toggle devices, guiding means on the frame for the lower head, said means including a roller on the head and a cam slot on the frame, the upper portion of which slot is at an oblique angle to the plane of separation of the mold members, a system of linkage interconnecting the intermediate pivots of the toggles and including a link that is pivotally connected to the frame and also including a member connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle, the cam slot in the last-named member being adapted to produce movement of the intermediate toggle pivots in unison, during a part of the movement of the lower head, and to produce movement with relation to each other during another portion of the movement of the lower head consequent upon the opening and closing operation of the press.

3 26. In a press, the combination of a frame, a pair of mold members, toggles for moving one of the mold members with respect to the other, means for operating the toggles, guiding means in the frame for the toggles, said means including a cam slot in the frame, and a coating roller on one of the toggles, said cam slot having the upper portion thereof inclined to the axis of the mold whereby one of the mold sections is shifted with reference to the other during that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness.

27. A method of stripping a pneumatic non-skid tire from a two-part vulcanizing mold after vulcanization, comprising shifting the mold parts obliquely relative to each

other while a tire in said mold is in the path of oblique movement of said mold parts, then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface.

8. Applicant appealed from the decision of the Primary Examiner to the Board of Appeals, who affirmed the rejection of the Primary Examiner in their decision dated March 2, 1940.

9. The Commissioner of Patents, by the Board of Appeals, contends that the applicant is not entitled to make the said claims 22, 23, 26 and 27, because they constitute new matter not disclosed in the application as filed.

10. The applicant disagrees with these contentions of the Commissioner of Patents and contends that the subject matter of the said rejected claims was fully disclosed in the application as filed.

11. Plaintiffs allege that the Commissioner of Patents refused to grant a patent with the said claims 22, 23, 26 and 27 or any of them, notwithstanding the proper application by the plaintiff, Henry C. Bostwick.

12. Plaintiffs allege that neither of them has appealed to the Court of Customs and Patent Appeals from the decision of the Board of Appeals of the Patent Office.

4 13. The plaintiffs further state that the said invention is new and useful, and was not known or used by others in this country before the invention thereof by said Henry C. Bostwick, and not patented or described in any printed publication in this or any foreign country before his invention thereof or more than two years prior to his application for patent therefor, and not in public use or on sale in this country for more than two years prior to said application, and not patented in any foreign country by him or his legal representatives on an application filed more than twelve months prior to said application for United States patent and not abandoned.

Wherefore, the plaintiffs pray that this Honorable Court decree that said Henry C. Bostwick invented the subject matter set out in said Claims 22, 23, 26 and 27; that his said application as filed adequately and legally disclosed the same, and that the Commissioner of Patents be directed to allow in the said application the said Claims 22, 23, 26 and

27 and such other claims as upon hearing the Court may find patentable.

THE AKRON STANDARD MOLD
COMPANY

By: A. J. FLEITER
President

HENRY C. BOSTWICK

BATES, TEARE & McBEAN
1125 Terminal Tower Bldg.
Cleveland, Ohio
Counsel for Plaintiffs

DONALD A. GARDINER
Woodward Bldg.
Washington, D. C.

STATE OF OHIO
County of Summit, ss:

On this 13th day of April, 1940, personally appeared before me the above named Henry C. Bostwick and A. J. Fleiter President of The Akron Standard Mold Company, the plaintiffs, named in the foregoing bill, each of whom being duly sworn, did depose and say that he has read the foregoing bill and that the same is true to the best of his knowledge and belief.

JACK I. BARNBY,
(Seal) *Notary Public*

My Commission Expires Mar. 26, 1941

5 Endorsed: Filed May 29 1940 Charles E. Stewart, Clerk.

In the District Court of the United States for the
District of Columbia

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY and HENRY C.
BOSTWICK, *Plaintiffs.*

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Answer to the Bill of Complaint

To the Honorable the Judges of the District Court of the United States for the District of Columbia.

Conway P. Coe, Commissioner of Patents, defendant herein, in answer to the Bill of Complaint, alleges on information and belief as follows:

1. He admits the allegations of citizenship and residence of plaintiff, Henry C. Bostwick, and admits that the said Henry C. Bostwick, claiming to be the first and original inventor of an improvement in Toggle Presses filed in the Patent Office, on May 28, 1937, an application for patent, which was given Serial No. 145,241.

2. He admits the allegations of incorporation and place of business of plaintiff, The Akron Standard Mold Company, and that the said plaintiff is the assignee of the entire right, title and interest of the said application Serial No. 145,241.

3. He admits the allegation of his official position but avers that while he has an official residence in the District of Columbia, he is a legal resident of the State of Maryland.

6 4. He admits the allegation of jurisdiction under Section 4915 R. S. (U. S. C., title 35, sec. 63.)

5. He admits that the said application No. 145,241 was filed in accordance with the laws of the United States and rules of the Patent Office.

6. He admits that the said application No. 145,241 was duly prosecuted in accordance with the laws of the United States and the rules of the Patent Office.

7. He admits that the primary examiner allowed claims 7, 16, 17, 20, 21, 24 and 25 of the said application No. 145,241 and that he refused to allow claims 22, 23, 26 and 27, and that the claims refused are as set forth in the Bill of Complaint except that "coating" in line 6 of claim 26, should be *coacting*.

8. He admits that applicant appealed from the decision of the primary examiner to the Board of Appeals, which in its decision dated March 2, 1940, affirmed the rejection by the primary examiner of the claims set out in paragraph 7.

9. He admits that by the decision of the Board of Appeals he has held that the applicant is not entitled to make the said claims 22, 23, 26 and 27 because they constitute new matter not disclosed in the application as filed.

10. He admits that the applicant contends that the subject matter of the said rejected claims was fully disclosed in the application as filed.

7 11. He admits that he has refused to grant a patent containing claims 22, 23, 26 and 27 but denies that the application is a proper one so far as these claims are concerned since, for the reasons given in the statement of the primary examiner in answer to the appeal and in the decision of the Board of Appeals, copies of which will be produced at the hearing, the claims constitute new matter not disclosed in the application as filed.

12. He admits that neither of the plaintiffs has appealed to the Court of Customs and Patent Appeals from the decision of the Board of Appeals.

13. He admits that the plaintiff, Henry C. Bostwick, in application No. 145,241 made averments corresponding to the allegations in paragraph 13, but denies that said allegations are sufficient to justify the issuance of a patent on said application containing any of claims 22, 23, 26 and 27.

W. W. COCHRAN
Attorney for Defendant.

May 28, 1940.

I hereby certify that a copy of this Answer was mailed to the attorney for plaintiff on May 28, 1940.

W. W. COCHRAN
Attorney for Defendant.

8 *Depositions of Henry C. Bostwick, Edward M. Sears, and Frank Behra*

Taken on behalf of Plaintiffs, before E. W. Guitteau,
Notary Public, Summit County, Ohio

Filed August 17 1940

* * *

9 In the District Court of the United States
For the District of Columbia

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY, and
HENRY C. BOSTWICK, *Plaintiffs,*

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Depositions of witnesses taken before me, E. W. Guitteau, a Notary Public within and for the County of Summit and State of Ohio, pursuant to the annexed notice and at the time and place therein specified, to be read in evidence on behalf of the plaintiffs in a certain action pending in the District Court of the United States for the District of Columbia, Civil Action Number 6629, wherein The Akron Standard Mold Company and Henry C. Bostwick, are Plaintiff, and Conway P. Coe, etc. is Defendant.

Appearances:

Albert R. Teare, Esq., of the firm of Bates, Teare & McBean, Esqs., of 1125 Terminal Tower, Cleveland, Ohio, On behalf of Plaintiffs, and

E. L. Reynolds, Esq., of Washington, D. C., On behalf of Defendant.

10 **Henry C. Bostwick**, of lawful age, by me first duly cautioned and sworn, deposes and says as follows:

Direct Examination

By Mr. Teare:

D. Q. 1. Mr. Bostwick, where do you reside? A. R. F. D. number 4, Akron.

D. Q. 2. What is your occupation? A. Development engineer.

D. Q. 3. For what company? A. Akron Standard Mold Company.

D. Q. 4. Are you the applicant named in the application? A. Yes—

D. Q. 5. —For letters patent in the United States Patent Office, serial number 145,241, filed May 28, 1937, and entitled "Toggle Press"? A. I am.

D. Q. 6. Have you at any time made a full-size machine embodying the invention disclosed in that application? A We have.

D. Q. 7. Are you now prepared to demonstrate the operation of that machine? A. Yes.

D. Q. 8. What operation will be performed by that machine? A. As you close the press—you put the tire in and close the press; at the end of the cure when the press operates it has a sliding action which compresses the tire between two molds, front and back.

D. Q. 9. What is the effect, if any, on the tire cured in that compressive action? A. It strips the tire loose from the mold.

11 D. Q. 10. Do you have any photographs of the press which you are about to operate? A. Yes.

(Witness produces photographs)

Mr. Teare: The Notary is requested to mark the photographs which have been produced by the witness, Plaintiffs' Exhibit 1 to 4, inclusive. Exhibit 1, which constitutes a front view of the press; Exhibit 2, which constitutes a side view of the press; and Exhibit 3 is a close-up view of the cam slot which controls the movement of the lower mold; and Exhibit 4 is a close-up view of the window which has been cut into the mold for the purpose of observing the tire.

(Plaintiffs' Exhibit 1 to 4, inclusive, marked).

D. Q. 11. Have you compared these photographs, Exhibit 1 to 4, with the press which you are about to demonstrate? A. Yes.

D. Q. 12. Do they accurately represent that press? A. They do.

Mr. Teare: I offer the photographs, in evidence, Exhibits 1 to 4, inclusive.

D. Q. 13. Do you have any drawings of the construction of the press? A. Yes.

(Witness produces drawings)

Mr. Teare: The witness has produced a drawing which is marked for identification as Plaintiffs' Exhibit 5.

12 (Plaintiffs' Exhibit 5 marked)

And, by stipulation of counsel, a blue print may be used in lieu of the original.

D. Q. 14. Have you compared the drawing, Exhibit 5, with the press which you are about to demonstrate? A. Yes.

D. Q. 15. Will you please state how they compare? A. They compare exactly with the drawing down there.

D. Q. 16. With the press? A. Yes.

D. Q. 17. What effect, if any, does the cam slot 75 have on the operation of the tire during the opening movement of the press? A. Well, that comes off on an angle and compresses the tire by sliding motion—oblique motion, which squeezes it back and forth and presses it back the other way, which breaks it loose from the mold.

D. Q. 18. Prior to the making of the invention that is shown in your application what, if anything, was done by you toward making the cam slot different from the way it is shown in Figure 2 of your application, Serial number 145,241? A. The first press I made, the slot was at right angle with the parting of the mold.

D. Q. 19. What resulted from the construction of the slot in that manner in so far as stripping of the tire from the mold was concerned? A. So, many tires would stick at the top half of the mold and they were very hard to get out.

D. Q. 20. Did you make any press wherein the
13 upper part of the cam slot was parallel to the axis
of the mold? A. Yes.

D. Q. 21. Can you produce any photographs of that press? A. Right here. (Witness produces photographs)

Mr. Teare: Photographs produced by the witness are marked Exhibits 6, 7, and 8, respectively. Exhibit 6 is the press closed; and 7 is the press open; and Exhibit 8 is the press closed, showing a rear view.

(Plaintiffs' Exhibits 6, 7, and 8 marked)

D. Q. 22. Can you produce any drawing from which the press of the exhibits 6 to 8 was made? A. Yes.

(Witness produces drawing)

Mr. Teare: Witness has produced a drawing designated as number 1977 of the Akron Standard Mold Company, and counsel is asked whether he will stipulate that we may use blue prints of this drawing in lieu of the original?

Mr. Reynolds: Yes, that's all right.

Mr. Teare: The drawing produced is marked Exhibit 9.

(Plaintiffs' Exhibit 9 marked)

D. Q. 23. What happened to the press as shown in Exhibit 6 to 8, inclusive? A. What do you mean?

D. Q. 24. I mean, where is the press now? A. We destroyed it. We used up the castings in the foundry
14 In other words, we just scrapped the press.

D. Q. 25. Did you measure the angularity of the upper part of cam slot 75, shown on Figure 2 of your application, Serial number 145,241 with reference to the axis of the mold? A. Yes.

D. Q. 26. Approximately what angle is shown on your application, on Figure 2 of that application? A. About 8 degrees.

D. Q. 27. Did you measure the angularity of the slot that is shown on the press which you are about to demonstrate? A. Yes, sir.

D. Q. 28. And what did you find? A. It run between 8 and 9 degrees. Rough casting, you know; those slots are not machined, they are cored.

Mr. Teare: Let the record show then, we are going to inspect a press which the witness has caused to be put in operation. A tire is now being vulcanized in the press and it is about time for the cure to be completed.

Reporter's Note: At this point the taking of depositions was adjourned to a location in the plant of the Akron Standard Mold Company, where the press, above referred to, was in operation.

Mr. Teare: Let the record show that the air bag pressure is now being released from the air bag that is customarily placed inside the tire during the vulcanizing operation.
15 Now, let the record show that the air bag pressure has gone down to zero, and that the mold has now been opened, a fraction of an inch to show that the tire

pulled away from the lower mold during the initial opening movement of the press.

D. Q. 29. Approximately how far has the press now been opened? A. I would say about 7/32nds of an inch.

D. Q. 30. What is the present condition of the tire with respect to the lower mold? A. Well, the tire is stripped from the bottom half of the mold on the front of the press.

D. Q. 31. What is the purpose of the slot that is shown in the front of the upper mold part? A. I cut that away so you could see how the tire stripped out of the bottom half.

D. Q. 32. Now, will you please open the mold an additional amount? A. (Witness does so)

D. Q. 33. To what extent is the mold now open? A. 5/8ths of an inch.

Mr. Teare: Counsel is invited to examine the condition of the tire with respect to the lower mold part.

(Mr. Reynolds does so)

Mr. Teare: Now, will you please let the record show that counsel has inspected the condition of the tire with respect to the mold.

D. Q. 34. Now, will you please open the mold additionally? A. (Witness does so)

16 D. Q. 35. What happened to the tire with respect to the top of the mold when you continued the opening movement of the press? A. It stayed in the top half in the front and stayed in the bottom half in the back.

D. Q. 36. What effect did that have on the tire? A. That oblique motion twisted the tire.

D. Q. 37. And then what happened to the tire? A. It stripped it loose from both molds.

Reporter's Note: Thereupon the further taking of depositions was adjourned to the office of the Akron Standard Mold Company, where the following proceedings were had:

Mr. Teare: By stipulation of counsel a sketch which the witness has made to indicate the distance between the points marked "A" on the lower mold and the point marked "B" on the upper mold, this distance being shown as constituting one-fourth of an inch, is offered as Exhibit 10.

(Plaintiffs' Exhibit 10 marked)

D. Q. 38. Can you state whether the press which has just been operated has used molds like those shown in Figures 2 of the drawing of Application Serial number 145,241? A. Yes.

D. Q. 39. And what, if any difference existed in the operation of the press between that mold and that which you have shown in your Exhibit 10? A. None; no difference.

17 Mr. Teare: I think you can cross examine.

Cross Examination

By Mr. Reynolds:

X-Q. 1. Now, did you measure various dimensions of the tire that was in the mold during the experiment which you have described? A. Yes.

X-Q. 2. And will you please state what you ascertained the outer diameter of the tire to be? A. 28¼ inches.

X-Q. 3. And the inner diameter of the tire? A. 16 inches on the tire.

X-Q. 4. And of the air bag? A. 15 inches.

X-Q. 5. And what you found the width of the tread to be? A. Oh, 4¼ inches.

X-Q. 6. And the width of the tire at the greatest point—how would you describe it? A. That is the cross section of the tire. 6 inches.

X-Q. 7. That is what you call the greatest width? A. Yes

X-Q. 8. The cross section of the tire? A. Yes.

X-Q. 9. And that is 6 inches? A. Yes.

X-Q. 10. Now, will you please measure the distance from the axis of the mold to the top of the cam track? A. That would be the center line?

X-Q. 11. To the inner surface at the top. Will you please measure the distance from the axis of the mold to

18 the inner surface of the cam track at the uppermost point? A. (Witness does so) That would be 8 3/4ths inches, is about what that measures.

X-Q. 12. Now, please measure the distance from the axis to the uppermost portion of the top section of the cam slot? A. (Witness does so) It's about 7½ inches, inside edge.

X-Q. 13. Now, please measure the length of the upper portion of the cam slot? A. (Witness does so) Center to center is about 8¼ inches.

Mr. Reynolds: The distance just measured is from the center of the circle in the top of the cam track to the end of the straight part of this section of the track on the inside wall.

X-Q. 14. Now, please measure the link corresponding to the link numbered 18 on your patent office drawing? A. (Witnesses does so) 20 inches.

X-Q. 15. Now, measure the link corresponding to link 19 on the patent office drawing, center to center, again. A. (Witness does so) 16¾ inches.

X-Q. 16. Now, measure the link corresponding to the link number 20 on your application drawing? A. Again, center to center?

X-Q. 17. Yes. A. (Witness does so) 15 inches exactly.

X-Q. 18. And now the link corresponding to link 21 of your application drawing? A. (Witness does so) 15 inches exactly.

X-Q. 19. You mean, that is the same as the other one? A. Yes.

19 X-Q. 20. Is that right? A. Yes.—Well, the same as this one up here. (Witness indicating)

X-Q. 21. All right. Now, please measure the distance between the points at which the two links are pivoted to the lower mold section? A. 20 inches.

Mr. Teare: Let the record show that is shown on Exhibit 5 as being 20 inches.

X-Q. 22. Now, measure the distance betwen the points at which the links are pivoted to the base of the machine? A. (Witness does so) That is also shown as 10 inches on the drawing, Exhibit 5, and checks exactly.

X-Q. 23. Ten inches? A. Yes.

(Plaintiffs' Exhibit 11 marked)

Mr. Reynolds: I now offer as Exhibit 11 a copy of a photostat of sheet 2 of the drawing of the Bostwick application, in suit.

X-Q. 24. Will you please measure on the drawing which is offered as Exhibit 11 the distance from the axis of the mold to the upper portion of the inner surface of the cam track? A. (Witness does so) It is 52/64ths inches.

X-Q. 25. Will you please measure the distance between the axis of the mold and the lowermost portion of the straight part on the inside of the upper part of the cam track? A. (Witness does so) 46/64ths inches.

X-Q. 26. Now, the length of the straight section of the upper part of the cam track? A. (Witness measures same) About 51/64ths.

Mr. Reynolds: The distance just measured ex-
20 tends from the bottom of the straight part of the
upper section of the cam track to the center of the
curvature of the top of the cam track extended.

X-Q. 27. Now, measure the length of the link 18 on your patent office drawing on Exhibit 11? A. (Witness does so) 1-7/8th inches.

X-Q. 28. And now link 19, will you measure that? A. (Witness does so) 38/64ths inches.

X-Q. 29. Now, the length of link 20 on your patent office drawing on Exhibit 11? A. (Witness measures same) That is 1-26/64ths inches.

X-Q. 30. And now the link 21, will you measure that on the drawing? A. (Witness does so) That is 1-27/64ths inches.

X-Q. 31. Now, measure the distance between the pivots on the mold? A. 1-7/8th inches.

X-Q. 32. And the distance between the pivot points on the base where the toggle links are pivoted? A. (Witness measures same) 15/16th inches.

X-Q. 33. Now, measure the outer diameter of the tire on Exhibit 11? A. (Witness does so) 2-5/8ths inches.

X-Q. 34. And the inner diameter of the tire? A. (Witness measures same) 1-7/16ths inch.

X-Q. 35. And the width of the tread, will you measure that? A. (Witness does so) 7/16ths inch.

X-Q. 36. And the cross section of the tire? A. (Witness measures same) 9/16ths.

X-Q. 37. Please measure on Exhibit 5 the angle between
the inner face of the upper section of the cam track
21 and the axis of the mold. A. (Witness measures
same) 8 degrees.

X-Q. 38. Now, make the same measurement on Exhibit 11? A. (Witness does so) About 8 degrees.

X-Q. 39. Now, did you testify that the machine which you demonstrated is an exact replica of what is shown by the drawing, Exhibit 11? A. Yes.

X-Q. 40. Is it not true that in the machine which you demonstrated there is a flange at the outer edge of the upper mold section, which is not shown in Exhibit 11? A. That's right.

X-Q. 41. Is it not also true that in Exhibit 11 there is a projection on the upper portion of the mold fitting into a depression on the lower portion of the fold, and that no such structure was present in the machine which you demonstrated? A. That's right.

Mr. Reynolds: The projection just referred to on the upper mold section has been lettered "A" on Exhibit 11.

Q. 42. Now, isn't it true that Exhibit 11 shows no clearance between the projection just referred to and the wall of the depression in the lower mold section? A. Yes, that's right.

X-Q. 43. In the arrangement shown in Exhibit 11, is it not necessary that the initial movement of the lower mold section must be in a strictly axial direction? A. No, sir; it could travel out this way just the same. (Witness indicating)

X-Q. 44. Your answer to that question is "No"?
22 A. Yes.

X-Q. 45. Will you please explain your last answer? A. As the mold registers are made on a taper, it would allow the bottom half of the mold to move in any direction as it started opening, if it were not for the cam and the wide slot. It is more or less common practice to make mold registers tapered for, if they were square, it would be difficult to register the top and bottom half of your mold.

X-Q. 46. Please look at the upper section of the cam track on Exhibit 11 and see whether the extreme upper portion of your track is not parallel with the axis of the mold? A. No.

X-Q. 47. Then it is your testimony that the upper section of the track extends in an uninterrupted straight line from the bottom of the track to the point at which the roller contacts this surface? A. Yes.

X-Q. 48. Did you know before you filed your application that the action of the lower mold section in moving away from the upper, served to strip the tire away from the mold? A. Yes.

X-Q. 49. What is the function of ring 76 in your application? A. That shoves the tire up off of the mold at the end of the cure. And when the press is fully opened for the reason if the press is open and there is nobody around the tire would lay on the hot mold. This way it raises the tire up and it does not lay on the hot mold.

X-Q. 50. This ring is not a stripper member, in your understanding? A. Not exactly, no.—Whether you would call it a stripper or not, I would just—

X-Q. 51. Does it strip the tire from the mold in the
23 ordinary sense of that term? A. I don't know
whether it strips the tire from the mold—the tire is stripped from the mold at the start of the opening operation. At the end of the opening operation link 76 ejects the tire up away from the hot mold.

X-Q. 52. Have you finished? A. Yes. That's right.

X-Q. 53. Then it is your testimony that the tire has actually been stripped from the lower section of the mold before link 76 acts on it? A. Yes, sir.

X-Q. 54. Then in that case the member 76 couldn't properly be called a stripper element, could it? A. Well no, I don't think it would be called a stripper element, because it just ejects the tire.

X-Q. 55. Will you please refer to where you referred to it as a stripper element in your application as filed? A. Well, whether you would call it stripping a tire at the end of the stroke or not, I don't know.

X-Q. 56. Have you finished your answer to that question? A. Yes.

X-Q. 57. Was there any suggestion in your specification and claims as filed that the tire was stripped from the mold before the mold reached its lower position?

(Discussion off the record)

Mr. Teare: The question calls for a legal conclusion as to the interpretation to be placed upon the language and
description and claims and the witness can answer
24 to the best of his own ability as to that interpreta-
tion. But, for the purpose of the record, we suggest that at the termination of this examination we shall point out to counsel what we regard as a disclosure to support the plaintiffs' theory of the case. Now, answer the quetsion.

(Q. 57. Read)

A. Not that I know of.

X-Q. 58. Did you regard this stripping as a feature of your invention? A. Well yes, I did.

X-Q. 59. Then how do you explain your failure to describe or claim it in your application as filed? A. I don't have any explanation to offer for it.

X-Q. 60. Now, referring to Exhibit 11, please explain what, in your opinion, is the exact description of the initial movement of the lower mold section with respect to the axis of the mold? A. Down and laterally, following the direction of the cam track.

X-Q. 61. Will you please measure on Exhibit 11 the heighth of the flange on the upper mold section? This flange is marked "B" on Exhibit 11. A. (Witness does so) About 6/64ths.

X-Q. 62. Now, supposing that the lower mold section were moved axially away from the upper, wouldn't this result in stripping the tire from one section of the mold? A. It only would strip the tire from half of it—from one half or the other of the mold because you would be pulling straight away and the one with least resistance would give first.

X-Q. 63. Referring to Exhibit number 10, this sketch, please explain why clearance is provided between the flange of the upper mold member and the surface of the lower mold member? A. To allow the bottom half of the mold member to travel in an oblique motion without any resistance against there.

X-Q. 64. Would the machine be operative if no clearance were provided at this point? A. It would, provided a right angle was made in the mold without any clearance. If you had a right angle on it so it would travel exactly right it would, but without a right angle it wouldn't, it would bind—friction on your mold. That is done to cut down the friction.

X-Q. 65. No such clearance as this is shown in Exhibit 11. Is that true? A. No. It shows on the right angle. That is why the clearance was put on there.

Mr. Teare: By "right angle", you mean the correct angle?

A. Yes, the correct angle.

X-Q. 66. Did you consider that you had invented a method when you filed your application? A. Yes, it is a method of stripping a tire loose from the mold.

X-Q. 67. Then how do you explain your failure to claim you had invented a method in your application as filed? A. Well, the same—

X-Q. 68. You have no explanation? A. No.—An
26 oversight.

Mr. Reynolds: That is all.

Redirect Examination

By Mr. Teare.

Re-D. Q. 1. In your direct examination you stated that you have seen presses operated with molds therein as shown in Figure 2 of your application in suit. What if any difference would there be in stripping the tire from the mold from the use of such molds, or, by that shown in the press which was operated today? A. It would strip the tire the same way.

Re-D. Q. 2. Are there more than one way of making the mating surfaces of the molds in so far as your common practice of making molds is concerned? A. Yes.

Re-D. Q. 3. Will you please describe a few of those? A. Well, some want to register a steeper angle than others, some want clearance at the start of the register and some don't want so much. That varies.

Re-D. Q. 4. To what does the word "some" refer? The purchaser, you mean? A. Well, some companies, yes.

Re-D. Q. 5. So your practice then is to follow the desires of the purchaser in that respect? A. Yes.

Mr. Teare: Well, that will be all.

(Signature of witness waived)

Mr. Teare: Before taking the next witness, I indicated
I want to make a statement for the record. With
27 respect to the questions which were directed to the
witness concerning the legal effect of the specification and claims as originally filed, attention is called to the fact that in the opening paragraph, page 2, reliance will be placed upon the statement in the first paragraph to sup-

port the disclosure of the subject matter involved in this action. Reliance will also be placed upon the structure as set forth in claim 12 as originally filed, and reliance will be placed upon the fact that the drawings show a press which inherently operates to produce the result set forth in the claims involved in this action.

Edward M. Sears, of lawful age, by me first duly cautioned and sworn, deposes and says as follows:

Direct Examination

By Mr. Teare

D. Q. 1. What is your name? A. Edward M. Sears.

D. Q. 2. What is your address? A. 1771 East Market Street.

D. Q. 3. What is your occupation? A. I am a machine designer.

D. Q. 4. For what company? A. Akron Standard Mold Company.

D. Q. 5. In that capacity have you had anything to do with making drawings showing construction of presses made by Akron Standard Mold Company? A. I had practically all to do with it, under Mr. Bostwick's
28 supervision.

D. Q. 6. Under his supervision? A. Yes.

D. Q. 7. Can you identify the drawings which I now hand you? A. Yes, sir.

D. Q. 8. Which is marked Exhibit 5 in this action? A. I do. I made the drawing.

D. Q. 9. Where has the drawing been since the time it was made? A. In our files.

D. Q. 10. Have you examined the press which has just been operated? A. Yes, sir; I did.

D. Q. 11. How does it compare with the drawing, Exhibit 5? A. It does compare with it.

D. Q. 12. Well, I mean, is it— A. Just exactly like the drawing.

Mr. Teare: The drawing is *offered* in evidence as Exhibit 5.

D. Q. 13. Can you identify the drawing marked Exhibit 9? A. I made that drawing also.

D. Q. 14. And where has that drawing been since the time you made it? A. In my file.

D. Q. 15. Do you know whether a press was made from that drawing? A. Yes, sir.

D. Q. 16. Did you see that press? A. Yes, sir; I did.

D. Q. 17. Can you identify photographs 6, 7 and 8? A. Yes, sir; that is the press, made from these drawings here.

D. Q. 18. By "these drawings" you mean Exhibit 9, drawing number 1977? A. Yes.

29 Mr. Teare: I *offer* the photographs in evidence. You may cross examine.

Cross Examination

By Mr. Reynolds

X-Q. 1. What connection did you have with the construction of the machines as operated this morning? A. Making the drawing and following the parts as they went together on the machine.

X-Q. 2. Then do you know of your own knowledge whether the machines correspond exactly to the drawing or not? A. I do.

X-Q. 3. How do you know they correspond exactly? A. I was there at the time it was constructed and operated.

X-Q. 4. Have you checked the measurements of the machine against the measurements indicated on the drawings? A. I have.

X-Q. 5. In all respects? A. Yes, in all respects, I would say so.

Mr. Reynolds: That is all.

(Signature of witness waived)

30 **Frank Behra,** of lawful age, by me first duly cautioned and sworn as hereinafter certified, deposes and says as follows:

Direct Examination

By Mr. Teare.

D. Q. 1. What is your name? A. Frank Behra.

D. Q. 2. Where do you reside? A. 408 North Firestone Boulevard.

D. Q. 3. That is, Akron, Ohio? A. Yes.

D. Q. 4. What is your occupation? A. Superintendent.

D. Q. 5. Of— A. Of this plant.

D. Q. 6. The Akron Standard Mold Company? A. Yes.

D. Q. 7. What are your duties in that connection? A. Well, general—of overseeing the whole shop, most of the machinery. Johnny handles the molds, you know.

D. Q. 8. What, if anything, have you had to do with the supervising of the construction of the presses? A. Well, they would draw them up and I would make them up to their drawings.

D. Q. 9. Have you seen the press that was operated this morning? A. Yes, sir.

D. Q. 10. Vulcanizing a tire? A. Yes.

D. Q. 11. Can you identify the photographs, Exhibits 1, 2, 3 and 4? A. Yes.

D. Q. 12. What do they represent? A. This is a
31 front view of the press. (Indicating)

D. Q. 13. That was operated this morning? A. Yes.

D. Q. 14. And Exhibit 2? A. This is the side view.

D. Q. 15. And Exhibit 3? A. It shows the cam action on the side.

D. Q. 16. And Exhibit 4? A. Its an inlet steam connection.

D. Q. 17. On the press? A. Yes.

D. Q. 18. Are you able to state whether or not that press as shown on Exhibits 1 to 4 has any relation to the drawing, Exhibit 5? A. Yes.

D. Q. 19. Have you compared the press with the drawing? A. Yes.

D. Q. 20. What has been your finding? A. As far as any—to general practice, it is the same as on this drawing.

D. Q. 21. Did you find any differences between the press and this drawing? A. No.

D. Q. 22. Can you identify the photographs, Exhibits 6, 7 and 8? A. Yes.

D. Q. 23. What do they represent? A. The press that we made prior to this job.

D. Q. 24. Prior to the press shown on Exhibit 5? A. That's right.

32 D. Q. 25. How did the press shown in Exhibits 6, 7, and 8 correspond with the drawing number 1977, that is, Exhibit 9 herein? A. This is the drawing for that press.

Mr. Teare: The witness refers by "this" to Exhibit 9 and to the press shown on Exhibits 6, 7 and 8.—You may cross examine.

Mr. Reynolds: I haven't any cross examination.

(Signature of witness is waived)

Mr. Teare: It is stipulated by and between counsel that reading of the depositions and signature is waived by the witnesses and by counsel.

Thereupon taking of depositions was closed.

33 Endorsed: Filed Dec 12 1940

Report of Proceedings

In the District Court of the United States
for the District of Columbia

Civil Division No. 8

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY, and HENRY C. BOSTWICK, *Plaintiffs,*

v.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Washington, D. C.,
Monday, November 4, 1940.

The above entitled cause came on for hearing at 10:30 o'clock a. m. before the Honorable Daniel W. O'Donoghue, one of the Judges of said Court, sitting in Civil Division No. 8.

Appearances:
Albert R. Teare, Esquire, and
Donald A. Gardiner, Esquire, for the plaintiffs;
E. L. Reynolds, Esquire, for the defendant.

Proceedings

Mr. Gardiner: May I present to your Honor Mr. Albert R. Teare, who is a member of the bar of the Supreme Court of the United States and also a member of the bar of the highest court of the State of Ohio, and move his admission to the bar of this Court.

The Court: What is the purpose of this suit?

34 Mr. Gardiner: This is a suit under Section 4915, to authorize the Commissioner of Patents to issue a patent.

The Court: Counsel will be admitted for the purposes of this suit.

Mr. Gardiner: Thank you, your Honor.

Mr. Teare: Would the Court desire a brief opening statement?

The Court: Yes, very brief.

Opening Statement on Behalf of Plaintiffs

Mr. Teare: If the Court please, the subject matter with which we are concerned relates to presses that are used for vulcanizing automobile tires.

Those presses, we may say, are something like two hollow dishes or pans that are brought together, between which the rubber of the preformed tire is positioned and then heat is applied to those mold parts, as a result of which the rubber undergoes a chemical action and, we might say, sets. That process is called vulcanizing. We are not concerned here with any chemical action. We are concerned only with the mechanical structure by means of which the press is operated during the opening movement of the press. As the Court well knows, automobile tires have intricate tread designs. Those tread designs cause an interlocking between the rubber of the tire and the openings or interstices of the mold, so that some little difficulty is experienced in breaking the tire out of the mold when the press is opened.

Might I suggest that the Court turn to the book of exhibits, which will be found in the file, in the back of the depositions, and refer to Exhibit 1, which shows a photograph of the press with which we are concerned. It is the first photograph, your Honor, in the book of exhibits.
35 Is this the one that the Court is looking at?

The Court: In this Exhibit 1, that shows it?

Mr. Teare: I think that is it, yes. That is it, shaded differently, but it is the same.

The Court: All right.

Mr. Teare: That exhibit shows at the top two parts to which hose lines lead. The upper part is called the upper mold section and the lower part is called the lower mold section.

In this particular machine the upper part is relatively stationary, being held so by the two upright frame members on either side of the machine. The lower mold part is arranged to be moved downwardly and outwardly, so as to open the press to a position where the tire can be withdrawn.

Perhaps if the Court will now turn to Exhibit 11, which is the Patent Office drawing, the last exhibit in the book, the last page, the Court will see there in full lines the closed position of the mold, and in the broken lines, to the left, the open position of the mold.

Now, in the open position it will be observed that the lower part of the press is forwardly or at one side of the upper part of the press, that being arranged to make it convenient for the operator to lift the tire out of the press and replace it with a new one

We are concerned here with the means for moving that lower mold part obliquely, as it is called in the claim, with respect to the upper mold part. The means for accomplishing that concerns the interpretation to be placed upon the cam slot, which, on the exhibit before your Honor,
36 is indicated by the numeral 75, right in the middle of the exhibit. It is shown as an L-shaped slot part, right in the center of the page, and another part going up to the right. If I may show the Court Exhibit 1 again, it is that little L-shaped slot in the frame.

The Court: I do not see the numbers 7 and 5 on this Exhibit 11.

Mr. Teare: May I, then, come up to the bench and point it out to the Court?

The Court: You have it there, haven't you?

Mr. Teare: Right here, your Honor (indicating).

The Court: Oh. I thought you said 7 and 5.

Mr. Teare: Oh, I beg your pardon.

The Court: Seventy-five.

Mr. Teare: Now, the Court will notice that that slot is, you might say, roughly speaking, an L-shaped slot, the upper part extending upwardly to the right and the lower part extending to the left.

There is a roller that enters that slot, the roller being designated by the numerals 74. That roller is carried by the lower mold and, therefore, guides the lower mold, forcing it to go in a definite direction. It is important to notice that the upper part of the cam slot 75 extends at an angle to the axis of the mold itself. In other words, they are not parallel. The Court will observe that there is an inclination there in the upper part of the cam slot with respect to the axis of the mold. Well, that inclination was put there for a purpose. Prior to the present invention,
37 the applicant had the cam slot parallel to the
axis of the press and the result was that the lower mold half moved initially parallel to its own plane, came straight down along its own axis. That press was abandoned because it lacked the feature inherent in the operation of this press; and the difficulty was that the tire would stick at times in the upper half of the mold, because when you pulled downwardly the part which offered the least resistance would give first. That form of the press, as the testimony will show, was abandoned and this form was designed.

The plaintiff company is engaged in the manufacture of machinery for making tires and the applicant, Henry C. Bostwick, is one of their inventors, who has taken out quite a number of patents.

Now, his solution of this problem was to move the lower half of the mold laterally or obliquely with respect to the top part of the mold and, by giving it that lateral motion, he caused the tire to be twisted at the initial opening moment. In other words, if you pull directly down, you have force exerted to stick at all points on the tire, tending to pull it out of the upper half of the mold; but, if you move obliquely, you tend to push in the bottom part of the back while holding the front part of the top, and that twisting or application of force at diagonally opposite parts of the tire results in breaking the tire out of the mold.

We have five claims with which we are concerned. Four of them are on the apparatus and one is on the method.

During the prosecution of this application in the Patent Office information came to the plaintiffs that other parties were claiming the same subject matter in the Patent
38 Office; and an interference was declared between them. We knew about that, because our client owns one of those applications. Immediately upon discovering that fact, we made application to have this application put into interference.

The Examiner held that the language in the count relating to the shifting or oblique movement of the lower mold part was not, in his opinion, sufficiently set forth in the descriptive matter to justify the inclusion of those claims in that application.

He said there was doubt in his mind as to whether the cam slot, as we showed it, would operate adequately to produce the result that is set forth in these claims.

We know of no better way to satisfy a doubt than to take testimony and to show that the machine will do that; and that is what we did. But before we did that we filed an affidavit, under one of the Patent Office rules, stating that the machine performed in the manner set forth in the counts of this interference.

The Board of Appeals, on appeal, took a similar viewpoint.

Now, there is no rule of which we are aware by means of which testimony can be taken in the Patent Office to establish the point. Therefore this action was brought, to give us the opportunity of showing that the machine will do what the claims call for.

There is a further point to be considered, and that is the fact that the application, as originally filed, as we shall subsequently point out in detail, did describe the invention with sufficient clarity to justify the inclusion of the claims
39 in issue; and we shall show that one of the claims especially is substantially the same as one of the

claims here in issue—by that I mean one of the claims that we filed originally.

There is one further point with respect to the test that was made; and that concerns a showing of the mold inside the press itself. The mechanism for operating the press is intended to give that oblique motion; but the mold which was used in making the demonstration was one of several standard forms of mold, depending on the shape desired by the particular customer. Firestone may have one shape, Goodyear another, and Goodrich another, and so on; and our client makes molds for all of them. The shape which is shown in the Patent Office drawing has the mating faces of the mold parts similar to the shape of two ordinary pie tins; by that I mean the inclined outer surface that extends around the rim of the tin. The mold which was used in the test had a little different shape; and we assume that the defense would be that the mold used in the test and in the Patent Office drawing did not conform to the mold that is used in the press that was demonstrated; and therefore we put in some testimony on that point, as to how the drawings were made, although in the testimony that has been taken we have pointed out that the mold which was used was any one of several molds that could be used for that purpose.

Now, this case has been advanced for hearing because of the pendency of the interference. It appears that the other party to the interference—that is, the application owned by the plaintiffs—has a license with the plaintiffs and, under one of the rules of the Patent Office, when there is a common assignee to two applications, the assignee must make an election between those two applications for the purpose of prosecuting the interference. Well, it was clear to us that if such election were made an assignee would have the power to freeze out the licensee by electing to stand on this other application. That would be inequitable and for that reason the license or the legal title of the licensed application was transferred to the bank, as trustee, and the other party was given the right to prosecute an interference independently of the assignee, by counsel of his own choice, if he saw fit to do so.

On that showing the Patent Office has, as I understand the fact, raised no objection to this case going into the interference, if it can be demonstrated to the satisfaction of the Court that the application as filed had sufficient and adequate disclosure in it to make the claims with which we are concerned here.

Now, I should like to read just one claim, claim 27, in order that the Court may understand, perhaps a little more clearly, what we are trying to accomplish. Claim 27 calls for:

"A method of stripping a pneumatic non-skid tire from a two-part vulcanizing mold after vulcanization, comprising (shifting the mold parts obliquely) relative to each other while a tire in said mold is in the path of oblique movement of said mold parts, then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface."

41 Now, that, if the Court please, means a method that is inherent in the operation of this press. These presses are built for operation by a timing mechanism, which is so arranged that the operator merely presses a button after he places a tire on the lower mold part and while the press is open. That button energizes a circuit which operates to close the mold, to turn on the heat (which is usually in the form of steam), and then, after a predetermined time, the completion of the vulcanization, to open the press, to turn off the steam first and then to open the press.

There is shown in this application, in addition to the cam slot mechanism, what is known as an ejector or stripping ring. That may be seen in full lines 76 on the last page of the Patent Office drawing, Exhibit 11; and in the broken line 76A.

The Patent Office took the position that such mechanism constituted the means for stripping the tire from the mold. We suggest that the Court, in considering this case, refer to the testimony of the applicant, wherein he pointed out that the utility of that ejector ring is for the purpose of lifting the tire out of contact with the hot mold, after the press has been fully opened. Such lifting is desirable because one operator may be employed for handling a battery of presses. As I said, this automatic timing mechanism opens the press. Well, obviously, if the operator is not at the press at the moment of opening, the tire remains on the hot lower mold part; whereas, if the ejector ring is available as a means for lifting it off of the hot mold part, there is no danger to the tire, regardless of how long the press remains open before the operator can get to it. 42

The part with which we are concerned, as the claim states, is the initial opening of the press breaking the tread sections out of the molds when they are in close proximity with each other.

That, I think, covers the subject matter with which we are concerned.

Opening Statement on Behalf of Defendant

Mr. Reynolds: As Mr. Teare says, claim 27 was copied from another application for the purpose of interference and it is our contention that until the plaintiff had access to that other application he had no conception that the tire was stripped from the mold by shifting the mold parts obliquely, as called for by that claim. The specification is entirely silent on any stripping of the tire by the opening movement. There is not a word in there to indicate that the tire is pulled apart when the mold opens; and, on the contrary, this element which engages the lower mold section, it appears, is indicated as 76A, which is designated as an ejector or stripping ring. Stripping means pulling the tire loose; it does not mean just lifting it out. So that the specification seems clearly to indicate that the tire is stuck in the lower mold section at the time the mold is opened; and that, of course, is definitely contrary to any idea that it could have been stripped at the time of opening the mold. There is nothing in the specification to show that the upper section of the mold moves obliquely and that is consistently referred to in the specification as tilting. To tilt is not an oblique
43 movement. It is a pivotal movement.

As to this inclination of the cam slot 75, that is not described either in the specification. There is nothing in the specification that would preclude that from being parallel with the axis. It seems rather peculiar, in view of the plaintiff's own testimony taken after the distinction had been called to his attention, in which he claimed that there was an oblique movement, without which it would not operate satisfactorily. He refers to the inclination of that cam slot, yet he did not say a word about it in the specification.

So that the case fairly gets down to the idea that this operation is necessarily inherent in the operation of the parts disclosed by the drawings, but that does not seem reasonable, in view of the fact that the specification is inconsistent with the idea that this operation is inherent. Now

then, in the attempt to demonstrate that it was inherent, the plaintiff operated a machine which did, in separating the mold, remove the tire. It is not clear from the testimony whether the movement along that section was oblique or pivotal; but it is our contention that the machine that was demonstrated out there differed very materially from what is shown by the drawings; and therefore it does not demonstrate the manner in which the machine shown by the drawings would work. The particular difference, I want to say, is in the engagement of the mold sections. In the Patent Office drawings there is shown a flange of very considerable thickness engaged between the mold sections and it is quite clear that until the lower mold section had
44 moved to separate those sections there could be no
pivotal or oblique movement of the sort necessary to strip a tire from the mold; whereas, in the machine demonstrated there was quite a clearance and no such overlapping of the parts in the machine demonstrated, in which the parts were free to move pivotally or obliquely the very instant the mold parts separated; and that is the crucial point at which the stripping should take place. So that we feel that the demonstration of this machine did not establish anything that is inherent in this construction shown in the drawings.

Mr. Teare: I may add, if the Court please, that there is no prior art cited against these claims, so that the Court need not consider the question of patentability. There was one reference cited against them but during the prosecution, prior to final rejection, those differences were ironed out and the claims are allowable at the present time.

The Court: Does the plaintiff propose to offer further testimony or do we have all the testimony here by way of deposition?

Mr. Teare: We propose to offer additional testimony of one witness.

45 *Evidence on Behalf of Plaintiffs*

Mr. Teare: I would like to offer in evidence the depositions which were taken in behalf of the plaintiffs, being the testimony of Henry C. Bostwick, Edward M. Sears, and Frank Behra.

If the Court desires an exhibit number to be given to those depositions, we suggest that the number 15 be used, because we are using the numbers 1 to 12, inclusive, for the exhibits referred to in the depositions and filed with the depositions, which exhibit numbers are also used in our briefs.

(No exhibit number was placed on the depositions.)

Mr. Teare: We offer also the exhibits, numbered 1 to 11, which I referred to in the depositions.

The Court: They are already marked Exhibits 1 to 11, so it will not be necessary to mark them further.

Mr. Teare: Yes, your Honor.

(Exhibits numbered 1 to 11, inclusive, so designated, were received in evidence.)

Mr. Teare: We offer in evidence, as Plaintiffs' Exhibit 12, a certified copy of the file wrapper and contents of the application of Henry C. Bostwick, Serial No. 145,241, filed May 28, 1937, which is involved in this action.

(The document so produced and identified was received in evidence and marked Plaintiffs' Exhibit 12.)

Mr. Teare: We will now call Mr. Gundelach.

Thereupon **Howard F. Gundelach** was called as a witness on behalf of the plaintiffs and, having been first
46 duly sworn by the Assistant Clerk, was examined and testified as follows:

Direct Examination

By Mr. Teare:

D. Q. 1. Please state your full name. A. Howard F. Gundelach.

D. Q. 2. What is your residence? A. 3257 Bellamore Road, Cleveland, Ohio.

D. Q. 3. And what is your occupation? A. Patent Office draftsman.

D. Q. 4. For what firm? A. Bates, Teare & McBean.

D. Q. 5. For what length of time have you been associated with them? A. Seven years.

D. Q. 6. What, if anything, did you have to do in preparing the drawings that were used in connection with the filing of the application of Henry C. Bostwick, Serial No. 145,241, filed May 28, 1937? A. I made the drawings.

D. Q. 7. What data, if any, did you have for making such drawings? A. I worked from a blue print of the Akron Standard Mold Company. The blue print is Exhibit 5, I believe.

Mr. Teare: I ask the Court to refer to Exhibit 5.

D. Q. 8. What illustration on Exhibit 5 was used by you for making the Patent Office drawings? A. The illustration on the left, representing the side view of the machine.

47 D. Q. 9. In what way did you take off the dimensions from Exhibit 5 and apply them to the Patent Office drawings? A. I used what is known as a pair of proportional dividers.

D. Q. 10. What has been your education? A. I was graduated from Ohio State in engineering and physics and now I am studying law.

D. Q. 11. And for what length of time have you been making Patent Office drawings? A. Eight or nine years, I would say.

D. Q. 12. What would you say as to the comparison between the operating parts of the press as shown in the Patent Office drawing, Exhibit 11 in this case, and the illustration on Exhibit 5? A. Well, I would say they were practically the same thing.

D. Q. 13. Have you any way of demonstrating the comparison between the Patent Office drawing and Exhibit 5? A. Yes; I had an enlargement of the Patent Office drawing made (producing an enlarged drawing).

Mr. Teare: I ask that this enlargement be received in evidence and marked Plaintiffs' Exhibit 13.

(The drawing so produced and identified was received in evidence and marked Plaintiffs' Exhibit 13.)

D. Q. 14. To what scale did you have the Patent Office drawing enlarged? A. I had it so enlarged that it will fit on the top of the blue print, so that you can superimpose the two showings of the machine.

48 D. Q. 15. And have you placed one over the other and examined them? A. I have.

D. Q. 16. What did you find? A. I found that for all practical purposes the lines coincide.

Mr. Teare: That demonstration can be observed by the Court, by holding the two exhibits, 5 and 11, up against a window pane or against a strong light.

D. Q. 17. In making the Patent Office drawing what data, if any, did you have for illustrating the mold parts, that is the two co-acting mold halves? A. As I have shown it in the Patent Office drawing that is the conventional representation of a mold adapted to fit in this machine.

D. Q. 18. Are you able to state whether the upper part of the cam slot 75 bears any inclination to the axis of the mold? A. Yes.

D. Q. 19. Are you able to state whether the angle of the mating faces of the mold bears any relation to the angle of the cam slot? A. I have drawn them parallel, practically parallel.

D. Q. 20. Through what parts have those parallel lines been drawn? A. I have drawn a red line through the inner surface of the cam slot and a prolongation of that cam slot line. Also, I have prolonged the line of the mating faces of the two mold sections.

49 D. Q. 21. I take it, then, that prolonging the lines of the cam slot and also the line of the mating face that gives you the lines C-C and D-D that are shown in red ink on Exhibit 13. A. Yes.

D. Q. 22. Have you any way of determining whether those lines are parallel? A. One could take a pair of dividers and set it at a distance between the one end and the other end and find that they correspond throughout their length.

D. Q. 23. Did you make that examination? A. I did.

D. Q. 24. What was your finding? A. That the lines are practically parallel.

D. Q. 25. What is the effect of having those lines parallel, in so far as the opening of the press is concerned? A. Well, since the line D-D is parallel to the line C-C, it means that the lower mold can leave the upper mold at an angle which corresponds to the angle of the cam slot without interference.

D. Q. 26. By "angle" what do you mean? A. An angle to the axis of the mold.

D. Q. 27. Have you any way of demonstrating that removability of the lower mold part with respect to the upper mold part, even though the lower mold part is moved obliquely to the upper mold part? A. Yes; I have a pair of pie tins here.

(Two pie tins were produced.)

D. Q. 28. Now, will you please demonstrate, if you
50 can, by the two pie tins which you have produced,
whether the lower tin can be withdrawn from the
upper tin, even though it moved obliquely to the axis of the
tins? A. Yes. (The witness manipulated the pie tins.)

D. Q. 29. Turn around this way, to the Court. A. The bottom one could leave the top one at any angle up to and including the angle which these mating faces bear to the axis; in other words, the lower one could pull away from the top one at that angle (demonstrating).

D. Q. 30. Would it be correct to say that you could move the lower tin obliquely to the axis of the upper tin without any binding action occurring between the tins, so long as you moved it on the angle of the taper of the tin? A. Yes. There would be no binding. You might have slight friction there, but no binding.

D. Q. 31. How does that compare with the mold construction that is illustrated in the Patent Office drawing? A. Well, one could say that these mating faces here (indicating) represent the mating faces shown on the drawing.

Mr. Teare: When the witness said "here", he referred to the inclined taper on the side walls of the tins.

D. Q. 32. And to what red line on Plaintiffs' Exhibit 13 would that correspond? A. It would correspond to the red line D-D.

Mr. Teare: I ask that these two pie tins that have been used for demonstration be marked Plaintiffs' Exhibits 15 and 16, respectively, and received in evidence.

(The pie tins so produced and identified were received in evidence and marked Plaintiffs' Exhibits 15 and 16, respectively.)

51 D. Q. 33. Have you read the testimony that was given by the witnesses in this action in the form of depositions? A. Yes; I have.

D. Q. 34. In that testimony certain dimensions of the press which was demonstrated were set forth, were they not? A. Yes.

D. Q. 35. Also certain dimensions of the corresponding parts on the Patent Office drawing were mentioned, were they not? A. Yes.

D. Q. 36. Have you any way in which you could make a comparison of the parts that are represented by those dimensions? A. Yes; I made a chart, which is there before you.

Mr. Teare: That chart is offered in evidence as Plaintiffs' Exhibit 14.

(The chart so produced and identified was received in evidence and marked Plaintiffs' Exhibit 14.)

The Court: The one before was 13 and you then offered 15 and 16?

Mr. Teare: That is right, your Honor. We had previously assigned the numbers.

Will you hand this to the Court, please?

By Mr. Teare:

D. Q. 37. Will you please describe the chart, Plaintiffs' Exhibit 14? A. Yes. On the chart I have made two drawings, one in red ink and one in black ink, one superimposed upon the other.

52 D. Q. 38. What do the black lines and numerals represent? A. The black lines and numerals represent the measurements taken on the machine.

D. Q. 39. And what do the red lines and numerals represent? A. The red lines and numerals represent the measurements taken off the Patent Office drawing.

D. Q. 40. And to what scale is the chart drawn, with respect to the size of the machine? A. That is half size.

D. Q. 41. Now, what does this chart show to you? A. It shows to me that the measurements made on the machine and on the Patent Office drawing were very nearly in the same proportions, your Honor, within limits of observational error.

D. Q. 42. In what way would the observational error enter into the determination or making of the chart? A. Well, one might say that it is impossible to measure anything exactly or accurately. In this case, Mr. Bostwick seemed to have been using a scale laid out in 64ths of an inch; and therefore he had to measure the nearest 64ths; and then, in enlarging his measurements to the scale of the drawing, this error would be multiplied.

D. Q. 43. Would it be correct to say, then, that the difference, if any, would be caused by that observational factor in endeavoring to scale a small photostatic drawing such as Exhibit 11? A. Very likely.

Mr. Teare: That is all.

Cross Examination

By Mr. Reynolds:

53 X-Q. 44. Did you have any material other than this blue print, Exhibit 5, from which to make the Patent Office drawings? A. I must have had more for the rest of the mechanism.

X-Q. 45. Do you know where that material is now? Do you? A. I do not.

X-Q. 46. Now, did you ever see an actual machine of this type? A. No; I have not.

X-Q. 47. So that your testimony on how it operates is just conjecture on your part, rather than actual knowledge? A. From what I can tell by the blue prints and the testimony taken.

X-Q. 48. Have you measured on the drawing the taper of the frustum conical surface of the flange at the point of engagement of the mold sections? A. I have.

X-Q. 49. What is the angle? A. Roughly 8 degrees.

X-Q. 50. Now, does the Patent Office drawing show the extreme upper portion of the cam slot 75? A. Does it show it?

X-Q. 51. Yes. A. Yes, sir.

X-Q. 52. Isn't it behind the lever number 20 at the top? A. The edge which is the left hand line of the cam slot is out in the clear and can be seen.

X-Q. 53. Well, isn't the extreme upper part of the slot 75 behind that lever 20? A. I would say about the top quarter inch on this drawing. 54

X-Q. 54. It is behind it? A. Is hidden. And then it runs tangent with the circle, showing the top of the cam slot.

X-Q. 55. In view of that do you want to change your testimony that it can be seen?

Mr. Teare: He is not changing his testimony any. He is explaining what is shown on the drawing. A. You asked me whether part of it is hidden and then you asked me whether it is behind the lever 20.

By Mr. Reynolds:

X-Q. 56. Is your answer that it does or does not show that part? A. It does show it.

X-Q. 57. The upper part? A. In dotted lines.

X-Q. 58. That is, it is your testimony that that drawing does show the extreme upper portion of the cam slot 75? A. Yes, sir.

X-Q. 59. Well now, how do you explain your testimony a while ago that the upper part was not shown? A. I said that the upper portion is hidden behind other parts and therefore is shown in dotted lines.

X-Q. 60. It is shown in dotted lines, is it? A. Yes, sir.

X-Q. 61. You say it is shown in dotted lines? A. Yes, sir.

X-Q. 62. Will you please mark the dotted lines in
55 red pencil, showing it in red pencil? A. Lead pencil
or what?

(Sotto voce discussion between the witness and counsel ensued.)

Mr. Teare: Will you repeat to the reporter what you just said?

The Witness: Well, the uppermost portion of the cam slot 75 is shown on the drawing by the dotted circle, which is common both to it and to the roller 74.

By Mr. Reynolds:

X-Q. 63. Is the upper part of the lever 20 shown on the drawing? A. Yes. That would be the semicircle immediately outside of the circle just referred to.

X-Q. 64. Then your testimony is that the upper part of the cam slot 75 coincides with the inner dotted circle. Is that correct? A. Yes, sir.

Mr. Reynolds: That is all.

Mr. Teare: That is all.

(Thereupon the witness left the witness stand.)

Testimony in Behalf of the Defendant

Mr. Reynolds: I would like to offer in evidence, as Defendant's Exhibit 1, this folder containing copies of:

A—Print of drawings

B—Examiner's Statement
C—Decision of Board of Appeals.

(The document so produced and identified was received in evidence and by the reporter marked Defendant's Exhibit 1.)

56 Mr. Teare: I might say that that is all included in the certified copy of the file wrapper that has been filed in behalf of the plaintiffs.

Does the Court desire a short argument now?

The Court: That concludes all the testimony on both sides?

Mr. Teare: Yes, your Honor.

I believe I have offered in evidence all the exhibits which have been marked for identification in this case.

The Court: Your exhibits run from 1 to 16, do they?

Mr. Teare: Yes, your Honor.

I would assume that, for the purpose of brevity, the Court does not require the depositions to be read into the record.

The Court: No. I will read them.

I will take the case under advisement. I will have to do that or sit here and listen to them.

Mr. Teare: That is what I would assume.

The Court: And each side might wish an opportunity to sum up the case. You may do that if you wish.

Mr. Teare: I should like that opportunity, if the Court would give us the time.

The Court: How much time, about 15 or 20 minutes?

Mr. Teare: I should think that would be sufficient.

Mr. Reynolds: Your Honor, the plaintiffs have filed a brief; and I should like an opportunity to reply to that. I have not seen it prior to this morning.

The Court: Let me see it.

Mr. Teare: It has not been filed. We are offering 57 it now, if the Court please.

The Court: Would you want to file one this afternoon?

Mr. Reynolds: I would like to have until tomorrow morning, if it is convenient.

The Court: If I should take this case under advisement, I would like to have enough to keep me busy; and then you could mail it to me.

Mr. Teare: I would like to file this brief now, if the Court please.

The Court: Very well.

Argument on Behalf of the Plaintiffs

Mr. Teare: If the Court please, the statement has been made by counsel for the Commissioner of Patents that the application as originally filed did not include any reference to the oblique or shifting movement of the lower mold part with respect to the upper mold part.

The Court: Might I suggest to counsel for plaintiffs and for defendant that I would like to have you go over briefly but somewhat in detail just what occurred in this case in the Patent Office before this suit was filed here.

Mr. Teare: Yes.

The Court: You have gone over it somewhat quickly; but you must remember that you are more familiar with this than the Court is.

Mr. Teare: Yes.

The Court: Suppose you just summarize to me what has occurred in the Patent Office; and you say as a result of that that you have filed this suit here.

58 Mr. Teare: Yes.

The Court: That would help the Court.

I understand that the claims that you urge here are claims 22, 23, 26, and 27. Is that correct?

Mr. Teare: Yes, sir.

The Court: Those four are the only claims that are involved in this suit?

Mr. Teare: Yes, your Honor.

I might state that some claims have been allowed, but that the claims you have mentioned are in issue here.

Claims 22, 23, and 26 are on the mechanism and the important distinctions between those claims and the others, that were allowed, have been mentioned in the Examiner's Statement. He says in respect of claim 22 that there is no basis in the original disclosure for the term "shifting"; in claim 23, for the phrase "oblique angle", and also for the expression "shifted"; and in claim 26 for the statement "that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness."

The particular phraseology as to those objections is as follows:

"All these quoted expressions are directed to the idea of having the upper portion of cam slots 75 inclined to the mold axis to provide a relative lateral shifting movement between the mold sections during the opening movement. Such relative lateral movement would cause the adhesion between the rubber of the tire and the metal of the mold to be broken, by reason of the tire being compressed
59 between the lower rear portion of the lower mold section and the upper front portion of the upper mold section.

"There is no statement in the original specification regarding the relative inclination of cam slot 75. In view of the fact that patent drawings are not made to scale,—"

Of course, we contend that this one is made to scale, as we have demonstrated.

"—a slight apparent inclination between cam slot 75 and the line of separation of the mold sections is not sufficient foundation for applicant's recitation in these claims of the quoted expressions. Even if the illustrated inclination of the upper portion of cam slot 75 were as shown, it is so slight as to cause doubt whether the mere coaction of roller 74 with slot 75 would effect stripping of the tire from the mold without the aid of stripping ring 76. So far as appears from the original specification, applicant relied entirely upon members 76 to 79 to effect stripping, rather than the coaction of roller 74 and slot 75. The idea of stripping the tire by causing a relative lateral shifting movement of the mold sections during their opening movement appears to be wholly foreign to this application as originally filed."

The same thought is expressed by the Examiner in respect of claim 27, because he states:

"The original specification says nothing about '*shifting* the mold parts *obliquely* etc.' "

60 Now, the Board of Appeals then followed the decision of the Examiner and said:

"even if the illustrated inclination of cam slot 75 were as shown, it is so slight as to cause doubt whether the mere coaction of roller 74 with slot 75 would effect stripping of the tire from the mold without the aid of the stripping ring 76."

Then the Board erroneously stated:

"Appellant seems to concede that there is no description of this particular structure objected to by the examiner to support the appealed claims and it is believed that the examiner's position that the inclination of the upper portion of the cam slot 75 is so slight as to cause doubt whether the coaction of the slot 75 and roller 74 would effect stripping of the tire from the mold is sound."

We have then a situation where the Examiner and the Board entertained a doubt as to the operativeness of the inclined cam slot to produce what is called for in the claims.

To illustrate or to indicate that the applicant did have sufficient disclosure in the specification as originally presented to warrant insertion of the claims in issue, we call attention to the descriptive matter appearing at page 2, which is as follows:

"This invention relates to molding and vulcanizing presses and particularly to those wherein the mating mold sections are relatively movable, and wherein one of the sections is tiltable with reference to the other so as to facilitate the insertion and withdrawal of an article.

61 "The invention is shown in connection with a toggle operated press and has for one of its objects the provision of a motor drive wherein the motor is supported independently of the toggles so as to provide sufficient clearance between the mold sections to permit adequate tilting of the lower section for facilitating insertion and withdrawal of an article."

To indicate that the applicant claimed the subject matter at issue here, the Court is referred to claim 12, as originally filed, and which claims the mechanical structure and in the last element—the second last element includes "said guiding means including a cam slot on the frame and a stud carried by the head and movable in said slot."

When the depositions were taken the applicant Bostwick cut a small window in the top flange of the upper mold, which is shown in Exhibit 4, the window being in the form of a small rectangle by means of which the position of the tire with respect to the lower mold could be observed by counsel—wherefore we showed visibly that the tire was pulled away from the lower mold part in the front portion, as is called for by the claims, during the initial opening movement of the press. To effect that operation the press was opened 7/32 of an inch and then stopped, and at that point the testimony is as follows:

"Q. 30. What is the present condition of the tire with respect to the lower mold? A. Well, the tire is stripped
62 from the bottom half of the mold on the front of the
press.

"Q. 31. What is the purpose of the slot that is shown in the front of the upper mold part? A. I cut that away so you could how the tire stripped out of the bottom half."

Thereupon the press was opened 5/8 of an inch and opportunity was given to counsel to again observe the condition of the tire with respect to the mold; and then it was completely opened, to its fullest extent. Then the testimony was:

"Q. 35. What happened to the tire with respect to the top of the mold when you continued the opening movement of the press? A. It stayed in the top half in the front and stayed in the bottom half in the back.

"Q. 36. What effect did that have on the tire? A. That oblique motion twisted the tire.

"Q. 37. And then what happened to the tire? A. It stripped it loose from both molds."

To indicate that the cam slot 75 was purposely inclined to the axis of the mold, the witness Bostwick produced photographs of a press, Exhibits 6 and 7, which show the L-shaped cam slot, wherein the upper part of the slot is parallel with the axis of the mold.

In addition, he produced a drawing, Exhibit 9, which is a working drawing, and Exhibits 6, 7 and 8 also—this photograph—Exhibit 9 being a working drawing of that press.

With respect to the press having the vertical slot he
was interrogated as to the effect of withdrawing the
63 tire from the mold and he said:

"Q. 19. What resulted from the construction of the slot in that manner in so far as stripping of the tire from the mold was concerned? A. So many tires would stick at the top half of the mold and they were very hard to get out.

"Q. 20. Did you make any press wherein the upper part of the cam slot was parallel to the axis of the mold? A. Yes."

Then he was interrogated as to what happened to that press and his answer, to Q. 24, was:

"A. We destroyed it. We used up the castings in the foundry. In other words, we just scrapped the press."

Counsel for the Commissioner of Patents has suggested that if the applicant was aware of the difference between the press having a vertical or parallel to the axis cam slot before he had the press with the inclined axis, then he should have fully described that difference in the specification.

The Court will observe that there are other claims allowed in this application, specifically claims that relate to the matter of suspending the motor on the toggle links for operating the press. This element, that is to say the inclined relationship of the cam slot to the axis of the press, is the only feature of the invention at issue.

To indicate to the Court, however, that where an applicant shows invention in his drawing and where, as here, he has demonstrated that the operation of that press inherently produces the result called for in the claims, he had that invention. He not only had it but he reduced it
64 to practice, and it is well settled in the patent law that where an invention clearly appears from a drawing, although it is not described as fully as the Patent Office would like to have it, nevertheless, that is no reason for denying to the inventor the right to a patent on his invention.

We call the Court's attention to Wagenhorst v. Hydraulic Steel Company, reported in 27 F. (2d) 27, where the Court was considering facts that are somewhat akin to those presented here. In the Wagenhorst case the parent application showed an inclined automobile tire rim. He did not describe in much detail the nature or the shape or the function of that inclination. Subsequently he filed a divisional application and he made Fig. 4 of the parent case Fig. 2 of the divisional application. In the divisional application he set up additional descriptive matter, to describe in more detail what was shown n Fig. 4 of the parent case. Judge Denison decided the case and, after reciting the facts as I have stated them, said:

"We see no reason why, upon the face of the papers, Wagenhorst was not entitled to make this divisional application and to carry his invention back to the date of the first filing. It is now settled that what was disclosed in an application duly filed is a reduction to practice, and evidences a completed invention at that date, even though it was not then claimed." Citing Milburn v. Davis and other cases in the brief.

Then the Court said:

"What clearly appears by a drawing though not fully described may be a sufficient disclosure." Citing
65 Loom v. Higgins and other cases.

And then:

"To insert by amendment a fuller description of what completely appears by the original drawing and was intelligibly described is not to insert new matter." Citing cases.

And then:

"Where the construction and mechanical operation are obvious, it is not necessary that the applicant should describe the advantages, or indeed should know them." Citing cases.

I might point out to the Court that while this application was pending, and before the final rejection was made, the applicant made an amendment and described in a little more detail—perhaps just a few lines—the shifting or oblique movement of the lower mold part, by referring to the cam slot; and that after that amendment the Patent Office made no objection to that as being new matter. But in the final rejection, when the word "shifted" and the word "obliquely" were put into the claims, the objection of new matter was for the first time raised.

That may be akin to saying that a man making a mistake is not justified in doing it again; but I point out the fact that no objection was made to that description, although it was made before we had any knowledge of the interference. It was only when the knowledge of the interference was brought home to the Patent Office that they raised the objection of new matter.

66 We submit that the evidence which has been introduced makes obvious the fact that you can not operate that press without accomplishing the results called for in those claims; and if we have established that fact, your Honor, those claims should be allowable on this application.

Mr. Reynolds: If your Honor please, I want to point out again the fact that claim 27 was not original with this applicant but was copied from another application. Now, it is well settled under those circumstances that the man who appropriates a claim from another application has the burden of showing the basis for that claim in his own application.

So that the plaintiff starts with an unusually heavy burden in that he did not discover that he had this invention until he found out someone else was claiming it, so that there is an interference with him—did not discover it at all.

The Court: Was this claim 27 in his original application to the Patent Office?

Mr. Teare: No, sir.

The Court: Well, it is inserted for the first time here in this Court?

Mr. Reynolds: No, sir. It was inserted in the Patent Office, but only after he had seen it in the application of another party. It was not in his original application and it was not inserted until he found that another party claimed it.

The Court: He added it to the claims already made?

Mr. Reynolds: Yes, sir. These other claims are not copied. Claim 27 is the only one copied from the 67 other application.

Now, I assume the parts that Mr. Teare has read are the parts that come closest to the disclosure of this invention. I must confess that I can not see any of those parts. It simply says that the invention facilitates the removal of the tire from the mold. Well, that is facilitated by this ejector. Certainly the mere statement that the device facilitates the stripping of the tire does not mean that this stripping occurs at the time when the mold parts are separated. The claim 12, to which reference has been made, does not say that. It just says it has a cam slot there. We are not denying that. We are denying that it will produce the specific results that these claims call for.

Mr. Teare has not pointed out the oblique in the application and it is not described there. The action is consistently referred to as tilting. It is so described on page 7, where it says:

> "the relationship being such, that whenever the press is open, the lower section tilts gradually and shifts laterally toward the left in Fig. 3 as it moves away from the upper section until clearance is obtained, then it tilts abruptly forwardly, so as to facilitate the removal of the article therefrom."

There was plenty of chance to say "oblique" if he considered that the movement was oblique, and instead of that he says "tilts".

And similarly on page 9 it says:

> "in the meantime the lower section continues its downward
> vertical movement until it eventually reaches the
> 68 position shown by the broken lines in Fig. 2."

It is just described as tilting all the way through; no indication that it is oblique.

Now, finally, claim 6, which was an original claim, presented before he saw this claim 27, in another part of his application, refers to an element which is now called ejector and which removes the tire from the mold. "Strip" is not mentioned; it is just to lift it out of the mold. When you pick up an object you do not call that stripping. Stripping implies the use of force.

So, until claim 27 was disclosed to him, he was perfectly satisfied to say that his tire was stripped when the mold was opened, entirely open. Of course it can not be stripped at two different places. If it were stripped when the mold was open, it could not be stripped down here.

So his claim 1 led one to understand that the stripping took place when the mold was open; it was stripped after the mold was open.

So the specification does not disclose this definitely and that increases the already heavy burden that he is under, of showing it in the drawings. Now, the plaintiff's contention is that this operation is necessarily inherent in the drawing, although he did not apparently realize that when he filed his application and he made his specification cover tilting the mold into favorable position for inserting and removing the molded article.

Patent Office drawings are not working drawings. This one may have been. Anyone making this machine would not consider scaling this drawing. They would make the
69 parts generally as to the drawing and according to the specification. There is nothing in the specification as to the inclination of the cam track, which is certainly a critical feature of the invention. If the plaintiffs make the contention that that is shown, it does not show just how much off the axial direction it has to be. Even assuming that it inclined it from the axis, it would not necessarily be a sufficient amount to produce this result.

Now, aside from that, the plaintiffs have got to show that if you make the device exactly as it is shown here, it will produce the result which he claims—in other words, to make the device shown and not a device something like that—and that is all he has done; and we say he has to show us that it is similar to this.

Your Honor will notice in Fig. 2, as I have already pointed out, that there is quite a deep flange at the point of engagement by the two mold sections. That flange is shown in close engagement with a similar section on the other mold section, and the depth of that flange would be something over an inch, when you consider the scale on which the drawing is made and the size of the actual machine.

The plaintiff, in his Exhibit 10, made this drawing here to show—that is Exhibit 10 of the plaintiff—to show the construction of the mold sections at their point of engagement in his machine. Your Honor will notice that the flange on the upper section flares off very pronouncedly, so that at the very start of that movement there is a lot of clearance, and that can be turned very sharply, which is not the case in the application drawing.

70 There has been some testimony that there could be a limited movement of the parts shown on the application drawings, and that is probably true, but it would certainly not be of anything like the magnitude that would be permitted here; and that is at the point where the alleged

stripping takes place. That is 7/32 of an inch in the machine.

Now, when the machine shown by the drawing has moved 7/32 of an inch, those two flanges would still overlap the other to a very considerable extent, so how there could be enough lateral movement at that point to strip the tire is something that can not be explained. It is quite evident that such a lateral movement has to take place very early in the operation of separating the two sections of the mold, or the tire would come directly off either one section or the other; and it had to start an axial movement; and there is no way to determine whether it would strip from the upper or the other section; and once it was stripped from one section, it would remain stuck to whichever section it happened to adhere to most strongly, so that the crux of the whole situation is that the initial lateral movement that takes place in the machine has demonstrated that that movement can be very much greater than is possible in the machine shown by the drawings.

It is our contention that since they contend that this exact structure discloses the invention they should demonstrate that exact structure and not modify it at that crucial point. So the fact that the tire was removed from that machine does not demonstrate that the same result could be obtained
by the operation of the machine disclosed in the plain-
71 tiff's application.

The Court: Did the plaintiff in this suit, in his application, in the Patent Office, use the word "oblique"? Did he use that in his original application at all?

Mr. Reynolds: No, sir.

The Court: And he used the word "strip" in his original application, but did he apply that to the ejector?

Mr. Reynolds: Yes, sir. He claims the stripper as the ejector; but there is no definite suggestion anywhere of the idea of oblique motion.

The Court: The idea that oblique movement would be the cause of ejection and stripping it did not come into the case until after the interference, after the other party had claimed the same device?

Mr. Reynolds: Yes, sir; that is our contention.

It is certain that the word "oblique" was not used and it is certain that there was no mention of the "stripping" until after the two sections have been separated.

Now, I would like to refer briefly to the claims. Claim 27 begins:

"A method of stripping a pneumatic non-skid tire from a two part vulcanizing mold after vulcanization."

Now, as I have already explained, we do not think that the applicant has disclosed any method of stripping the tire from the mold at that point.

I might also point out that there is no mention of its being a non-skid tire in this specification; the tire appears to be smooth, as far as I can tell from any showing that he has
made there; and if any part of the plaintiff's inven-
72 tion has to do with its being a non-skid tire, it should
have so stated.

Claim 27 continues:

"comprising shifting the mold parts obliquely relative to each other while a tire in said mold is in the path of oblique movement of said mold parts —"

As I say, that movement is not disclosed as oblique; it is disclosed as tilting.

Claim 27 continues:

"then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface."

That certainly calls for two different types of movement. He says shifting obliquely and then separating them.

Now then, that can not be a continuation of the same movement. If you go northeast, you can not describe that as going north and then going east. That is all he has here. That is a different movement, at best. That movement must involve separation before there can be any oblique movement; and, as a matter of fact, his disclosure makes it clear that the separation is essentially a part of the first movement.

This part I have just referred to, on page 7, says:

"that whenever the press is open, the lower section tilts gradually and shifts laterally toward the left in Fig. 3 as it moves away from the upper section until clearance is obtained, then it tilts abruptly forwardly, so as to facilitate the removal of the article therefrom."

In other words, the first movement consists primarily in obtaining the clearance, which is an axial movement and not the tilting, so that he starts out with a movement which is much more separation than it is tilting; and he wants to base on that this claim 27. I do not think that is possible in his device. 73

Certainly there are no two distinct movements which can properly be called oblique movement and separation.

So much for claim 27.

The other claims are all on a little different plane than claim 27; and it is quite conceivable that the others might be allowable, even though claim 27 was not.

For instance, claim 27 is the only one that calls for this definite stripping of the tire during this operation; and I believe it is also the only one that calls for an oblique movement.

The objection to claim 22 is that it contains in one of the closing lines the statement that the lower head is shifted. Claim 22 says in part:

"to impart a shifting and tilting movement of the head during the opening and closing operation of the press."

Now, that "shifting" we take to mean the same sort of lateral movement. It certainly does not mean an axial movement; and it can not mean a tilting movement because it says "shifting and tilting". And there is no shifting disclosed in addition to the tilting. The specification uniformly describes it as shifting.

If the "shifting" merely means any movement incidental to tilting, it is superfluous; and, in addition to that, we think it has no proper place in the claim.

74 Claim 23 says that the cam slot—that:

"the upper portion of which slot is at an oblique angle to the plane of separation of the mold members."

And that—I am still not convinced that that extreme upper portion is shown in the drawing. If your Honor will notice the upper portion of the cam slot runs into the line representing the cam and then behind the lever 20, and as far as I can see it disappears there. There is nothing shown beyond that except the circle that represents the roller apparently. Now, just exactly how the upper part of the slot runs we can not tell. As a matter of fact, the extreme upper movement of the lower mold section—during the extreme part of the movement of the lower mold section, it moves as a unit with the upper mold section—a movement which is guided by those pins 59, which your Honor will notice near the top. So long as those pins guide the movement, it has got to be a straight axial movement; and therefore the cam slot during that time would have to be axial or there would have to be enough play to allow it to be axial.

So I think, at best, it is doubtful just what that construction is; and there is no disclosure in the specification that it is axial and therefore we do not think he should be allowed to claim it as an element of his invention, the exact inclination of that part of the cam slot.

Claim 26, again, says:

> "said cam slot having an upper portion thereof inclined to the axis of the mold, whereby one of the mold sections is shifted with reference to the other."

It also includes the objection that I made to claim 22.

We do not think that there is any shifting, so that
75 claim 26 becomes subject to the objection both of 22
and of 23.

So that, in conclusion, we will say that plaintiffs are attempting to appropriate the invention of someone else here; and that this invention, that is apparently inconsistent with his specification; and we feel that he has gone far short of showing that it is inherent in his drawing; and under those circumstances we think that he ought not to be allowed the patent.

Further Argument on Behalf of the Plaintiffs

Mr. Teare: If the Court please, in answer to the Court's question as to whether the word "oblique" was inserted after the interference was declared, the reply is in the affirmative, because that was the language devised by the Examiner to define the issue between four other parties. The rule of the Patent Office practice with respect to defining the counts of an interference is to find out what is common to the inventions. The words that are used are incidental. It is well settled in patent practice that interferences are between inventions, between the things, and not between the words by which you describe those things.

If we had not inserted that claim in this application, we would then have been in default under Rule 109 of the Patent Office, which states that if a person has another application pending which, in his opinion, should be the basis of that interference with other parties whose applications are brought to his attention by virtue of the declaration of
interference, then he must come forward with that
76 application and bring it to the attention of the Commissioner of Patents.

The Patent Office is in a peculiar position. They say we should not make this under Rule 109, because it is new matter; and at the same time they say we can not make it because it has the word "obliquely" in it. You can not sustain those two positions. We are operating under the rules of the Patent Office when we say that is the same invention and that we may use different words in describing it; but we have proved by testimony that it operates as called for in those claims. How else could you prove that except by demonstrating it? There was no cross examination in this case which broke down the testimony of the witnesses; there was no cross examination which controverted what was said.

So, on the record, it has been demonstrated that the lower part of the mold moves obliquely. And what is obliquely? In the Army we used to say "Right oblique". That means you move diagonally, whether you move laterally or whether you move obliquely is merely getting to the same point in two different ways. The term obliquely, as used in this application, means that the upper part of the cam slot is inclined to the axis of the mold, so that you move on a diagonal.

If the Court desires some citations to the effect that interferences are between things and not words, I should like to have the opportunity of calling those cases to the attention of the Court by letter, to supplement the brief which has been filed, because it seems to me now that that is a
point which would be considered, if that is going to be
77 regarded as material.

The Court: Counsel for defendant does not make any question about that, that interferences are declared on the basis of the two inventions?

Mr. Reynolds: They are between inventions, your Honor, and they are based on claims. The Court of Appeals has held many times that every limitation in a claim must be held as material.

The Court: There is no difference between you on that. An interference is declared between two inventions. Those inventions are made known to the Patent Office and to the public generally by drawings and specifications. Isn't that right?

Mr. Teare: Yes.

The Court: So, therefore, you declare the interference between the two inventions. The inventions are described and made known and reduced to definite terms and descriptions by the drawings and by the specifications. Isn't that right?

Mr. Teare: Yes.

Now, the count is what defines the interference. It could not be put into the interference without the count, no matter what the application shows.

Mr. Reynolds: I do not know what the last statement means; but I do know that if this Court finds that the record which has just been produced shows that the machine corresponds to the Patent Office drawing and and the machine parts to produce the results found in those counts, then the applicant has the right to add those claims to his application—they are all allowable. It is just a question of whether his device operates to produce that result.

78 If the applicant has the right to add that claim to his application, then automatically he will go into interference with the other parties; and then the other parties will have the right to contest his right to add those claims.

The Court: Well, this Court is not passing upon interference proceedings of the Patent Office in this case.

Mr. Teare: That is right.

The Court: It is not necessary for me to go into that.

Mr. Teare: Then, as to the words "tilting" and "obliquely", we think we should call the attention of the Court to the fact that this applicant has referred to the motion of the lower part as tilting. Now, his tilting has two motions. If I move those Exhibits 15 and 16, those tin pie plates, (manipulating the exhibits) the first motion is obliquely in a line that is at an angle to the axis of the mold; and then the next motion is to bring it out a little to the front, so that the operator can lift it off without interference with the top mold part.

Now, I say, he has called that a tilting action. It so happens that his press, as shown in the drawings and as operated, has tilting in two directions. It is a tilting downwardly and then forwardly. The claims at issue are not so specific. So the applicant is pretty well describing his invention when he uses the word ‘‘tilting’’. If it should so happen that one applicant describes the motion as an oblique movement and another applicant describes it as a tilting movement, what is the difference?

79 The Court: You have just indicated by what you have done and by the words that there are two motions. The second motion that you went through there is what is commonly known as ‘‘tilting’’ and your first motion is an oblique motion. You would not lose a drop of water out of the lower mold until you started to tilt it. Now, the first motion is oblique.

Mr. Teare: That is what the claim says and that is what we do.

The Court: If you describe it as tilting, then that is not the same as oblique.

Mr. Teare: Well, we stated in an amendment to the specification, before the final rejection and before the claimed new matter was put in, in an amendment—

The Court (interposing) I can take this glass of water and I can move it along all the time and I won't get any water out of it until I tilt it.

Mr. Teare: Right.

The Court: That is a different motion from an oblique motion.

Mr. Teare: You mean that moving forwardly is different from tilting?

The Court: Moving obliquely is separate from and independent from tilting. Isn't that correct?

Mr. Teare: Yes, your Honor; and, even granting that, does not this press have the oblique motion? Does not this lower mold have the oblique motion?

The Court: That is what you say now. I understand that. Then the question is whether the word ‘‘tilting’’ describes that. 80

Mr. Teare: Well, your Honor, if I may call the Court's attention to what we did in the specification to describe that. In the amendment of January 23, 1939, which is found on page 37 of the certified copy, the specification was amended as follows:

"Page 7, line 21, add:

"As shown in Fig. 2 the upper portion of the slot 75 is inclined to the axis of the molds, and as a result, the first movement of the tilting and shifting action helps to break the connection between the tire and the mold."

That description is objected to as containing new matter; and it seems to me that if one inventor chooses to use one word to describe the motion, so long as that motion is there, what difference does it make? If he had the invention, he is entitled to the patent. If he did not have the invention, he is not entitled to it. The invention is to move that lower part down obliquely to the axis. That is what this says. The claim does not say that you have to move it all the way down obliquely to the axis. That is what counsel for the Commissioner has not pointed out to the Court. That claim is broad enough to cover any movement that is down obliquely to the axis. If the claim operates in that manner, the applicant has a right to a patent to his invention.

The Court: The Court has the case under advisement.

The plaintiff will file his brief and the Commissioner will file his brief.

(Thereupon the instant hearing was concluded and the Court recessed.)

81 Endorsed: Filed Dec 12 1940 Charles E. Stewart, Clerk.

In the District Court of the United States
For the District of Columbia

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY and HENRY C. BOSTWICK, *Plaintiffs*,

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Stipulation

It is hereby stipulated by and between counsel that Plaintiffs' physical Exhibits 15 and 16 may be withdrawn and retained by Plaintiffs' counsel subject to inspection at any reasonable time by counsel for the Defendant and pending production at the hearing in the Court of Appeals.

DONALD A. GARDINER,
Attorney for Plaintiffs.

W. W. COCHRAN,
Attorney for Defendant.

82 Endorsed: Filed Dec 13 1940 Charles E. Stewart, Clerk.

In the District Court of the United States
For the District of Columbia

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY and HENRY C. BOSTWICK, *Plaintiffs*,

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Order to Omit Duplicate of Exhibits

It is ordered, this 13th day of December, 1940, with the consent of the parties hereto, that Plaintiffs' original exhibits 1 to 14 inclusive be used for the transcript of record to be certified to the U. S. Court of Appeals for the D. C.

BOLITHA J. LAWS,
Justice.

I consent

W. W. COCHRAN,
Attorney for Defendant

I consent

DONALD A. GARDINER,
Attorney for Plaintiffs

83 *Order to Omit Duplicate of Exhibit*

Filed January 8- 1941

* * *

It is ordered, this 8th day of January, 1941, with the consent of the parties hereto, that Defendant's original exhibit 1 be used for the transcript of record to be certified to the U. S. Court of Appeals for the District of Columbia.

T. ALAN GOLDSBOROUGH,
Justice.

I consent

W. W. COCHRAN
Attorney for Defendant

I consent

DONALD A. GARDINER
Attorney for Plaintiffs

84 Endorsed: Filed Nov 14 1940 Charles E. Stewart, Clerk.

In the District Court of the United States
For the District of Columbia

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY and HENRY C. BOSTWICK, *Plaintiffs*,

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Findings of Fact

1. This is a suit brought under the provisions of Section 4915 R. S. (U. S. C., Title 35, sec. 63) in which it was sought to have the Court find that plaintiffs, The Akron Standard Mold Company and Henry C. Bostwick, as the assignee and applicant respectively of application No. 145,241, are entitled to have issued to them a patent containing claims 22, 23, 26 and 27 of the said application.

2. The application in suit discloses a tire molding and vulcanizing press comprising an upper section and a lower section which is movable relatively thereto to permit insertion and removal of a tire. The movement of the lower section was described as follows in the application as filed:

> "* * * whenever the press is open the lower section tilts gradually as it moves away from the upper section until clearance is obtained, then it tilts abruptly forwardly, so as to facilitate removal of the article therefrom."

3. The application contains no express description or illustration indicating that a non-skid tire is to be treated in the mold but the tire is shown in a conventional manner.

84½ 4. The application as filed contained no disclosure in the description or drawing of an oblique movement of one mold section with respect to the other.

5. The application as filed made no mention of the idea of stripping the tire from the mold during the separation of the mold sections nor of any compressing of the tire during such separation.

6. Claim 6 of the application as filed recited as a stripper ring an element which does not become active until the lower mold part reaches a position adjacent the end of its opening movement.

7. The description in the application as filed did not employ the word "shifting" in describing the movement of the lower mold section with respect to the upper one.

8. The description in the application as filed did not state that the upper portion of the cam slot 75 which regulates the movement of the lower mold section is or should be oblique to the plane of separation of the mold sections.

9. Each of the claims in suit contains one or more of the limitations mentioned in findings 3, 4, 5, 7 and 8.

10. A machine constructed in accordance with the disclosure either in the description or drawing of plaintiffs' application would not operate in the manner set forth in the claims in suit.

11. The machine operated during the taking of the plaintiffs' testimony differed from that disclosed in their application, in the shape of the meeting faces of the mold sections.

85

Conclusions of Law

1. The plaintiffs' application does not contain a disclosure either in the description or drawing which will support any of the claims in suit.

2. Plaintiffs are not entitled to a patent containing any of claims 22, 23, 26 and 27 of their application in suit.

3. The Bill of Complaint should be dismissed as to all the claims in suit.

DANIEL W. O'DONOGHUE,
Justice.

November 14th, 1940.

86 Endorsed: Filed Nov 14 1940 Charles E. Stewart, Clerk

In the District Court of the United States
For the District of Columbia

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY and
HENRY C. BOSTWICK, *Plaintiffs,*

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Final Judgment

This action came on to be heard at this term: and thereupon upon consideration thereof, it is, this 14 day of Nov., 1940, adjudged that the complaint in this case be, and the same hereby is dismissed with costs against the plaintiffs.

DANIEL W. O'DONOGHUE
Justice.

Approved as to form:

DONALD A. GARDINER
Attorney for Plaintiffs.

87 Endorsed: Filed Dec 2 1940 Charles E. Stewart, Clerk

In the District Court of the United States
For the District of Columbia

Civil No. 6629

AKRON STANDARD MOULD CO & HENRY C. BOSTWICK,
Plaintiff.

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Notice of Appeal

Notice is hereby given this 2nd day of December, 1940, that Akron Standard Mould Co & Henry C. Bostwick, plaintiffs hereby appeal to the United States Court of

Appeals for the District of Columbia from the judgment of this Court entered on the 14th day of November, 1940 in favor of Conway P. Coe, Commissioner of Patents against said Akron Standard Mould Co & Henry C. Bostwick

DONALD A GARDINER
Attorney for Plaintiffs

Memorandum

December 2 - 1940.

Undertaking ($250.00) of Plaintiffs on appeal—filed.

88 Endorsed: Filed Dec 12 1940 Charles E. Stewart, Clerk

In the District Court of the United States
For the District of Columbia

Civil Action No. 6629

THE AKRON STANDARD MOLD COMPANY and
HENRY C. BOSTWICK, *Plaintiffs*

vs.

CONWAY P. COE, Commissioner of Patents, *Defendant.*

Designation of Record

1. Bill of Complaint
2. Answer
3. Depositions of Henry C. Bostwick, Edward M. Sears and Frank Behra
4. Transcript of proceedings in the District Court at the hearing on November 4, 1940
5. Plaintiffs' Exhibits 1 to 11, inclusive, referred to in the depositions of Item 3, and referred to in Item 4 as Plaintiffs' Exhibits 1 to 11, inclusive.
6. Plaintiffs' Exhibits 12, 13, 14, 15 and 16.
7. Defendant's Exhibit 1.
8. Stipulation regarding plaintiffs' physical Exhibits 15 and 16
9. Findings of fact and conclusions of law
10. Order of Court dismissing the complaint
11. Notice of appeal

12. Bond on appeal
13. Designation of Contents of Record.

DONALD A GARDINER
Solicitor for Plaintiffs

Service of copy acknowledged and designation approved.

W. W. COCHRAN
Solicitor for Defendant

89 District Court of the United States
For the District of Columbia

UNITED STATES OF AMERICA,
District of Columbia, ss:

I, Charles E. Stewart, Clerk of the District Court of the United States for the District of Columbia, hereby certify the foregoing pages numbered from 1 to 88, both inclusive, (excepting the depositions and report of proceedings, as to the accuracy of which counsel has certified), to be a true and correct transcript of the record, according to directions of counsel herein filed, copy of which is made part of this transcript, and in accordance with Rule 75 (g) of the Federal Rules of Civil Procedure for the District Courts of the United States, in cause No. 6629, Civil Action, wherein The Akron Standard Mold Company, et al., are plaintiffs and Conway P. Coe, Commissioner of Patents, is defendant, as the same remains upon the files and of record in said Court, except the following:

Plaintiffs' exhibits 1 to 14, both inclusive, and defendant's exhibit 1, the originals of which have been ordered transmitted to the United States Court of Appeals for use on appeal in said cause in lieu of copies.

In Testimony Whereof, I hereunto subscribe my name and affix the seal of said Court, at the City of Washington, in said District, this 9th day of January, 1941.

C. E. STEWART,
(Seal) *Clerk*

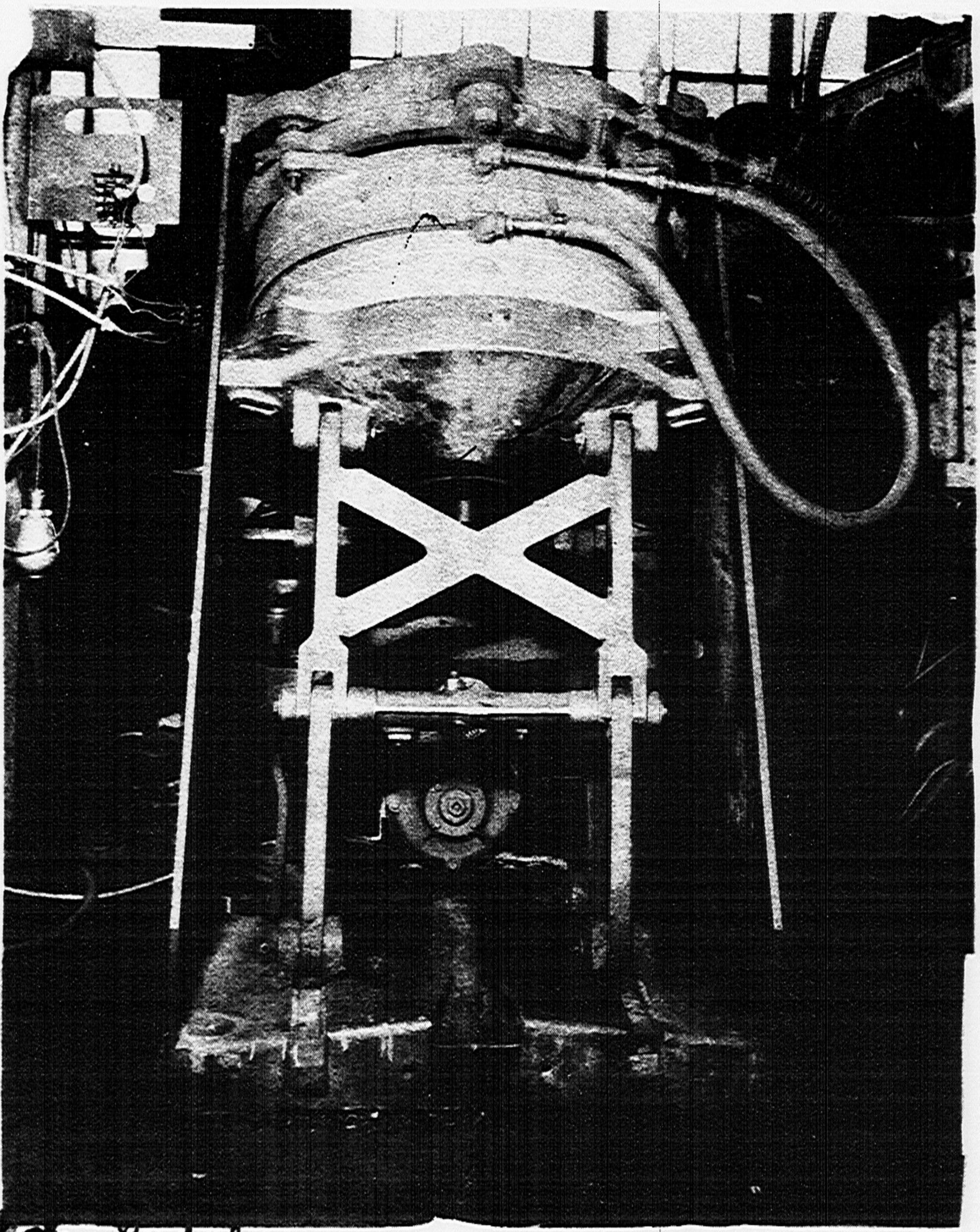
90 District Court of the United States
For the District of Columbia

United States of America,
District of Columbia, ss:

I, Charles E. Stewart, Clerk of the District Court of the United States for the District of Columbia, hereby certify that the attached exhibits 1 to 14, both inclusive, of plaintiff and exhibit 1 of defendant, are the original exhibits in Civil Action No. 6629, wherein The Akron Standard Mold Company, et al., are plaintiffs and Conway P. Coe, Commissioner of Patents, is defendant, which exhibits said Court ordered transmitted to the United States Court of Appeals for use on appeal in said cause in lieu of copies.

In Testimony Whereof, I hereunto subscribe my name and affix the seal of said Court, at the City of Washington, in said District, this 9th day of January, 1941.

C. E. STEWART,
(Seal) *Clerk*

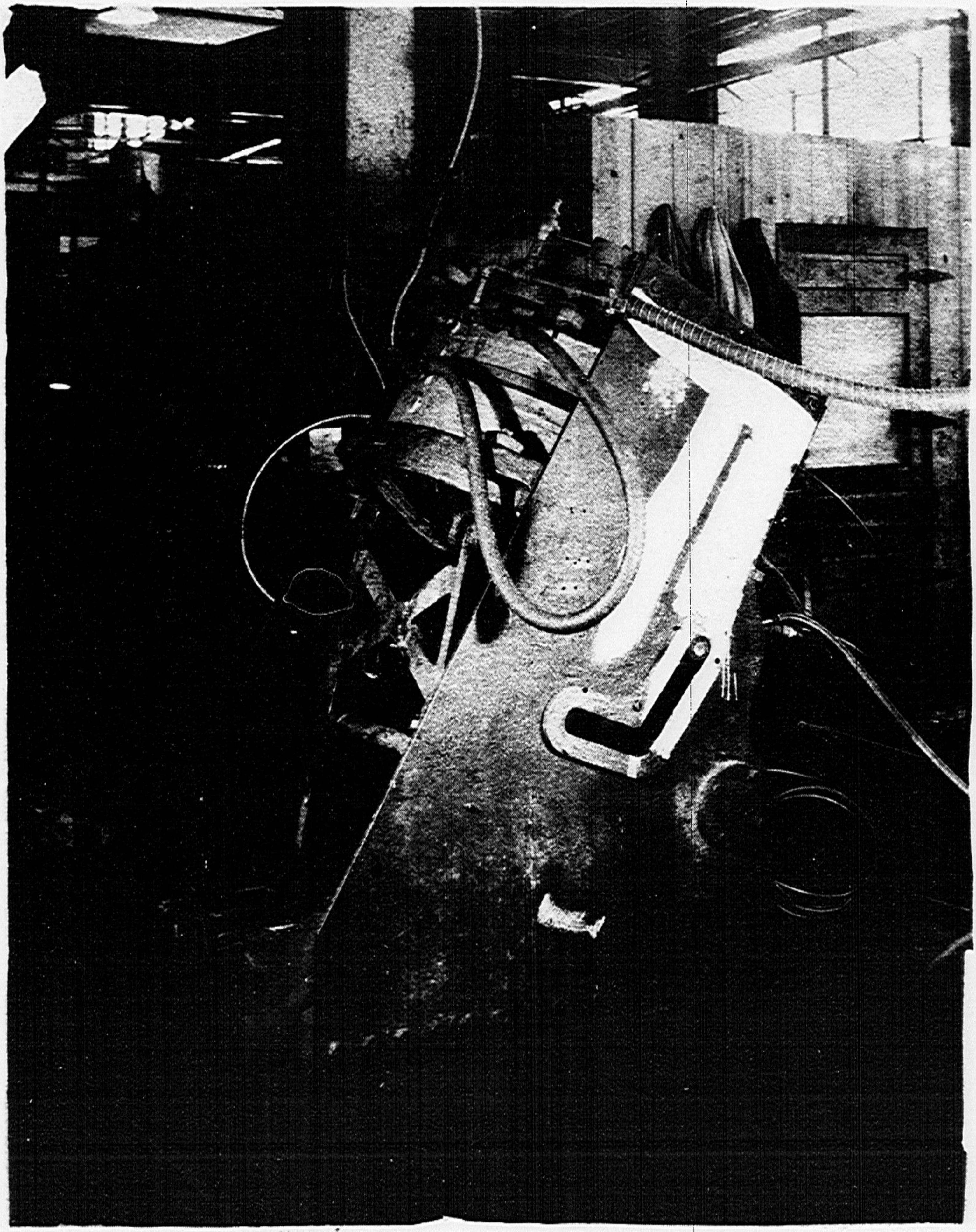


[illegible] Standard
[illegible] Co. vs. Cox

Plf. Ex. 1

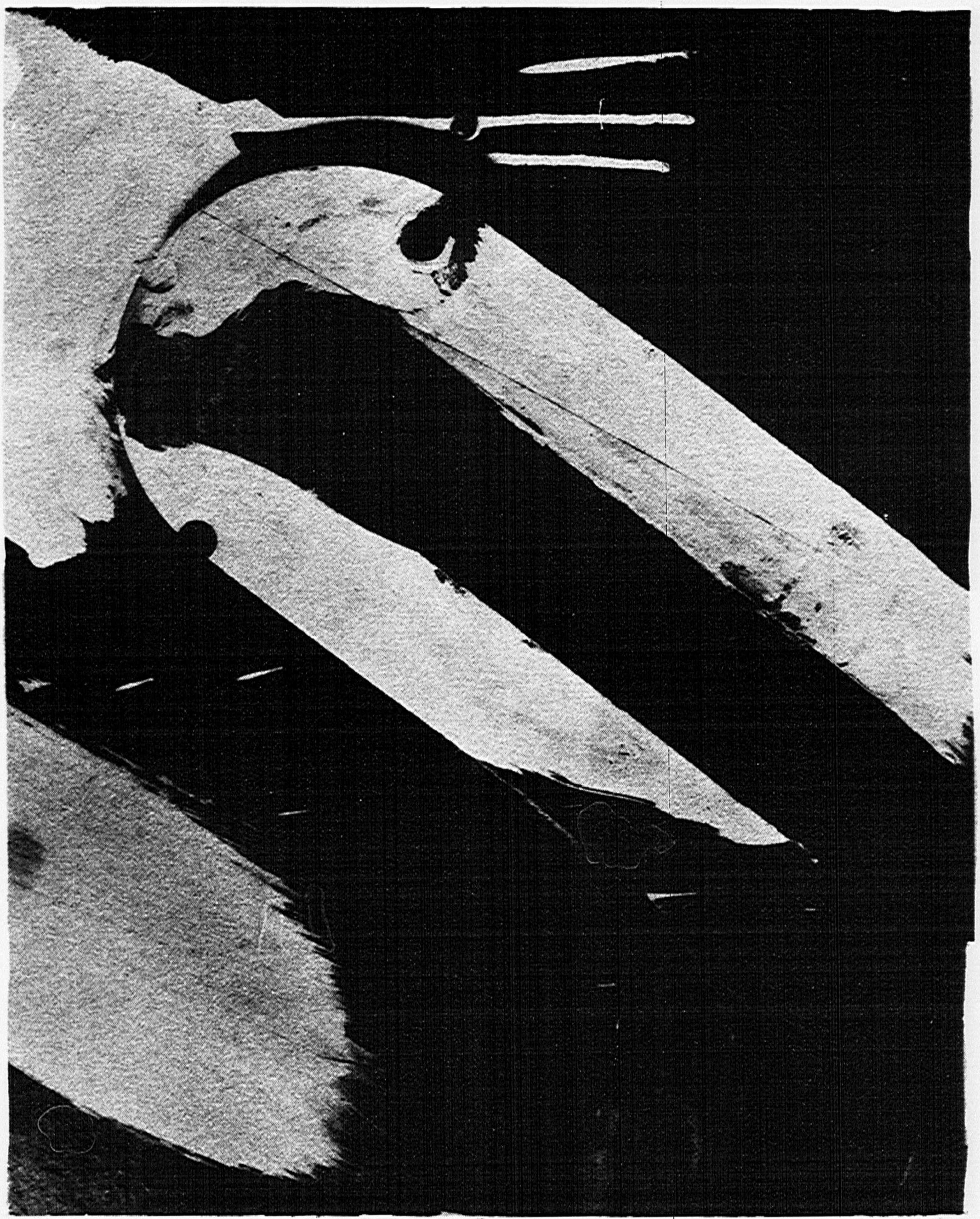
Civil Action 6629

92 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk



Obr. č. 12

94 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk



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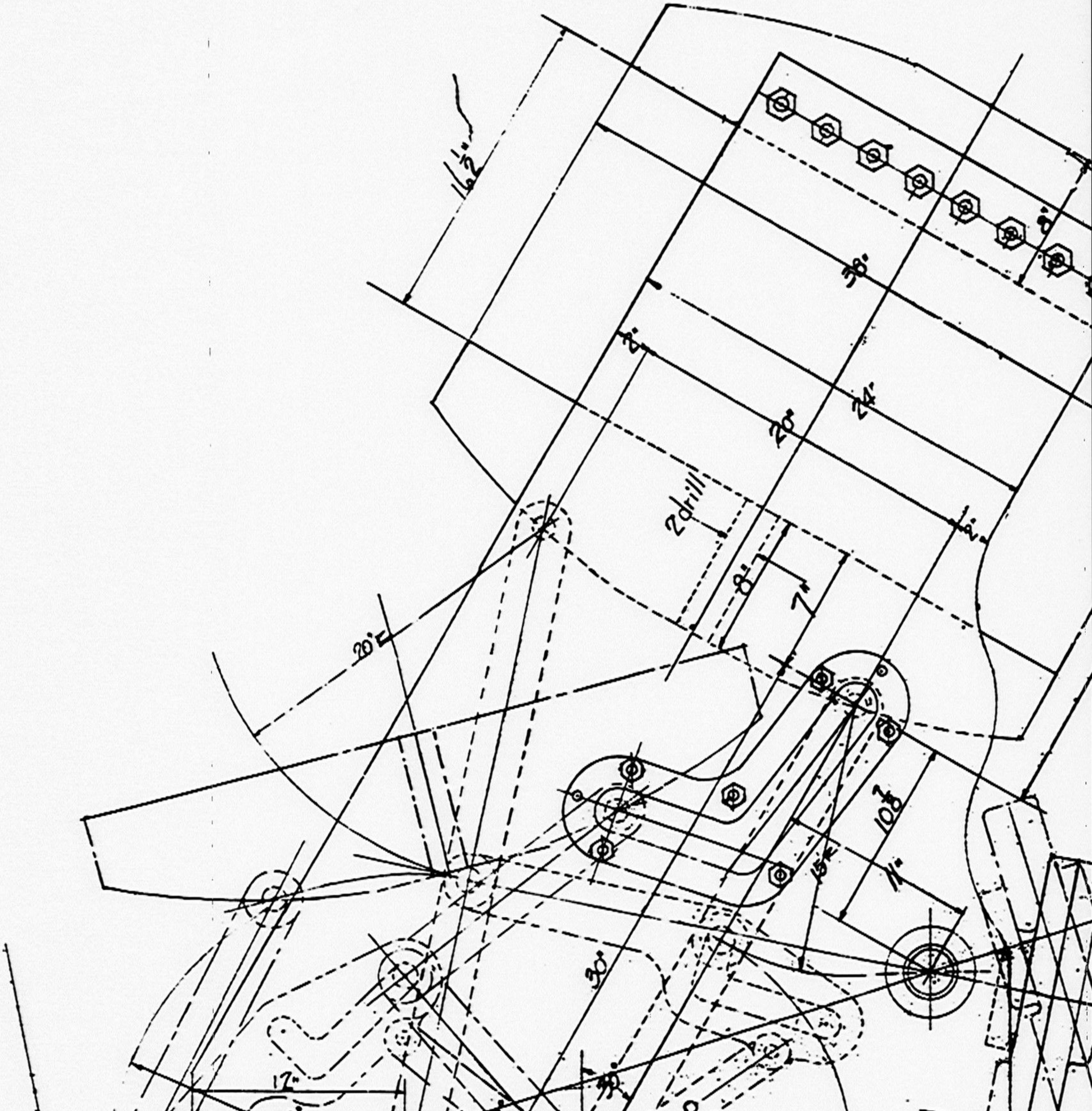
96 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk

Plf. Ex. 4

98 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk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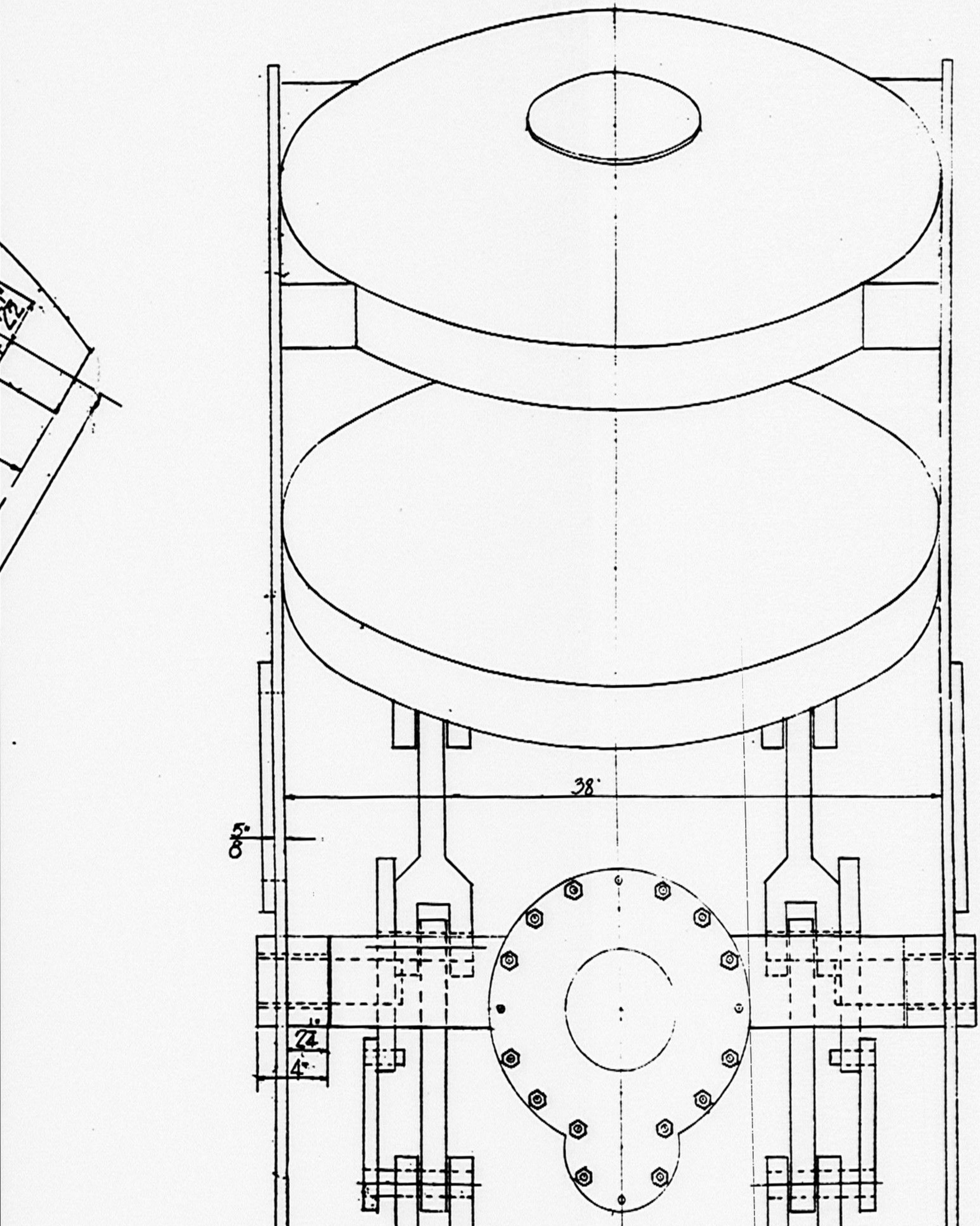
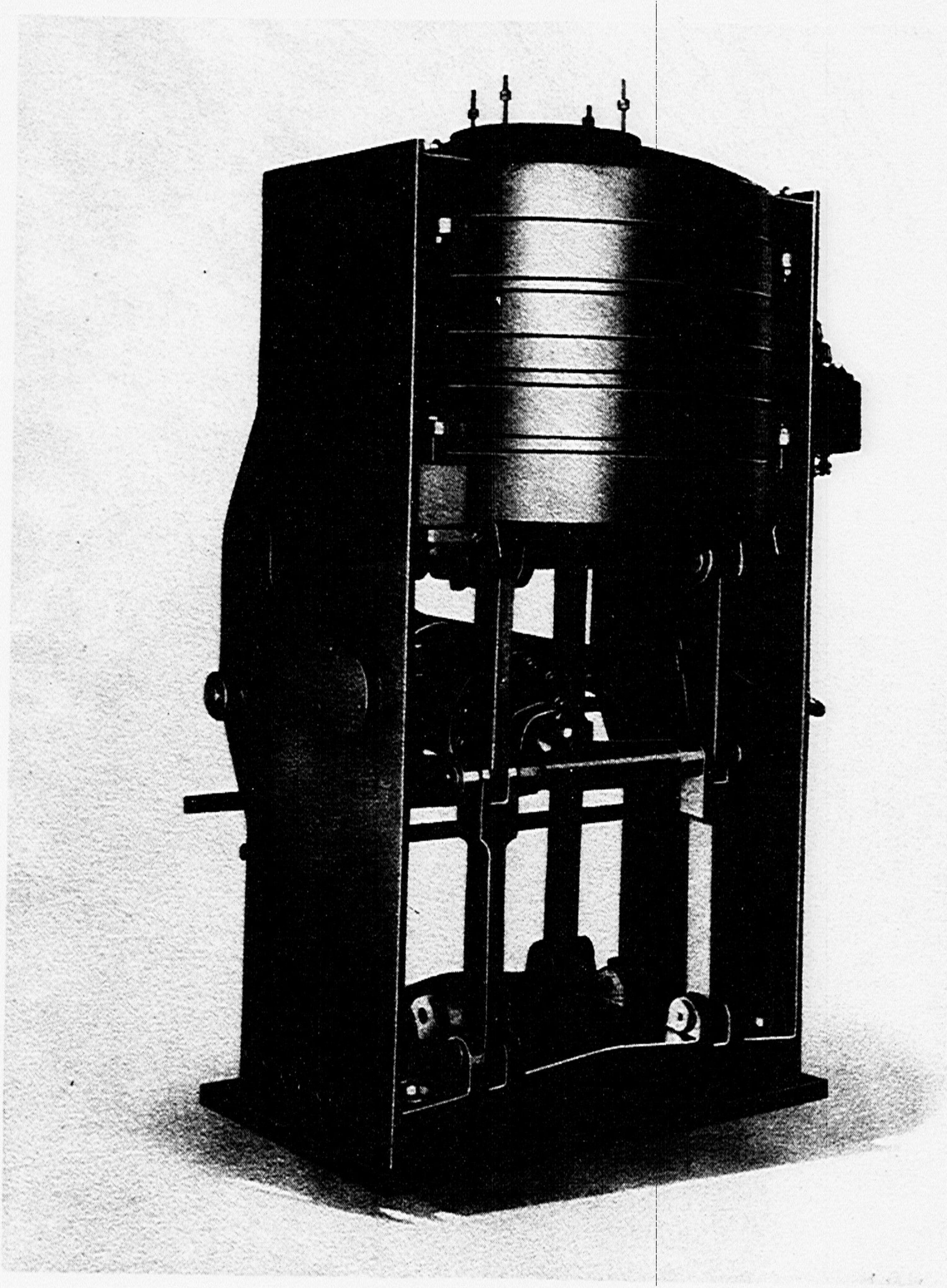


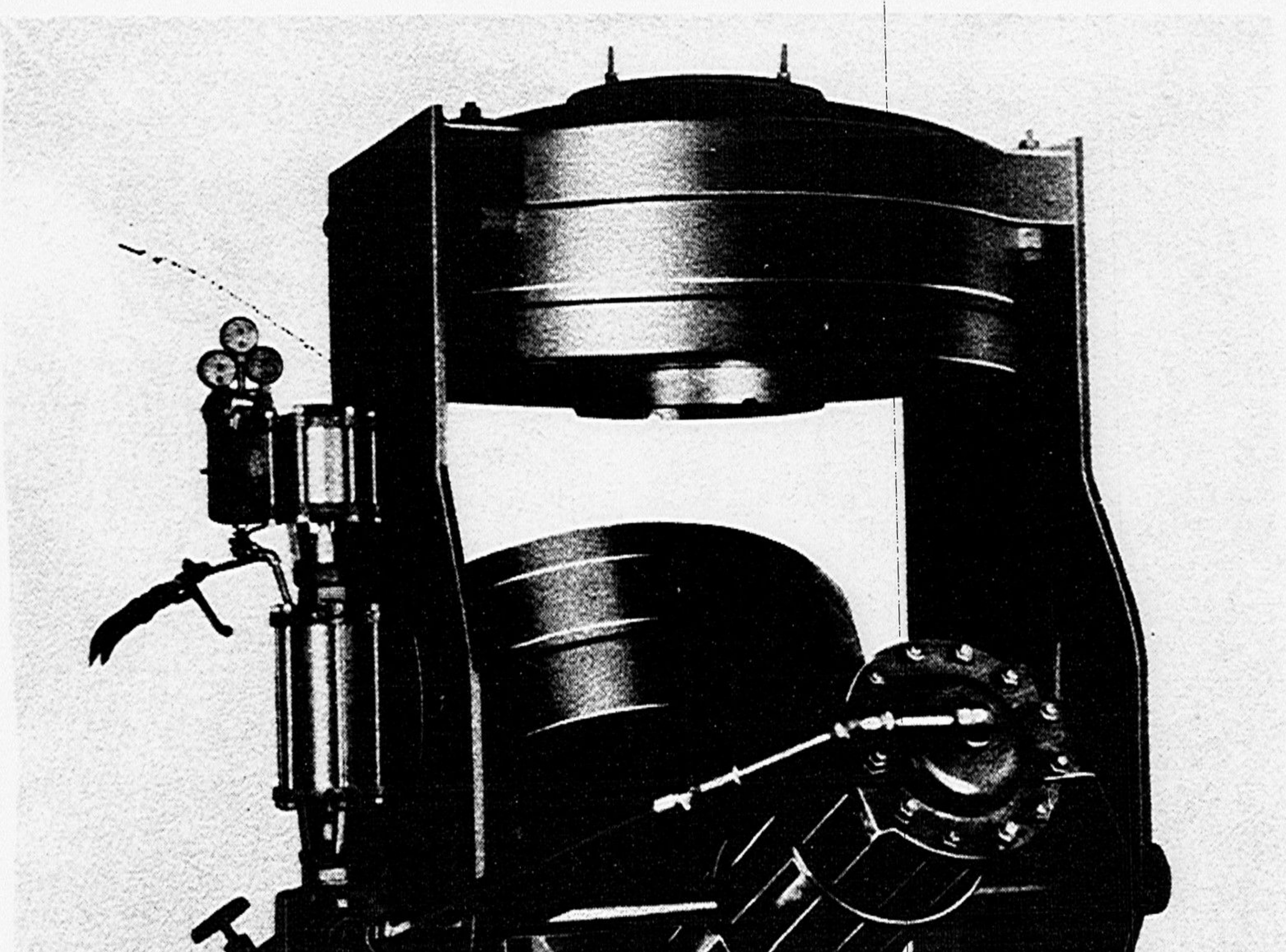
mbly Of Elec. Tire Equalizer Press

The Akron Standard Mold C[redacted]
Akron, Ohio EMS



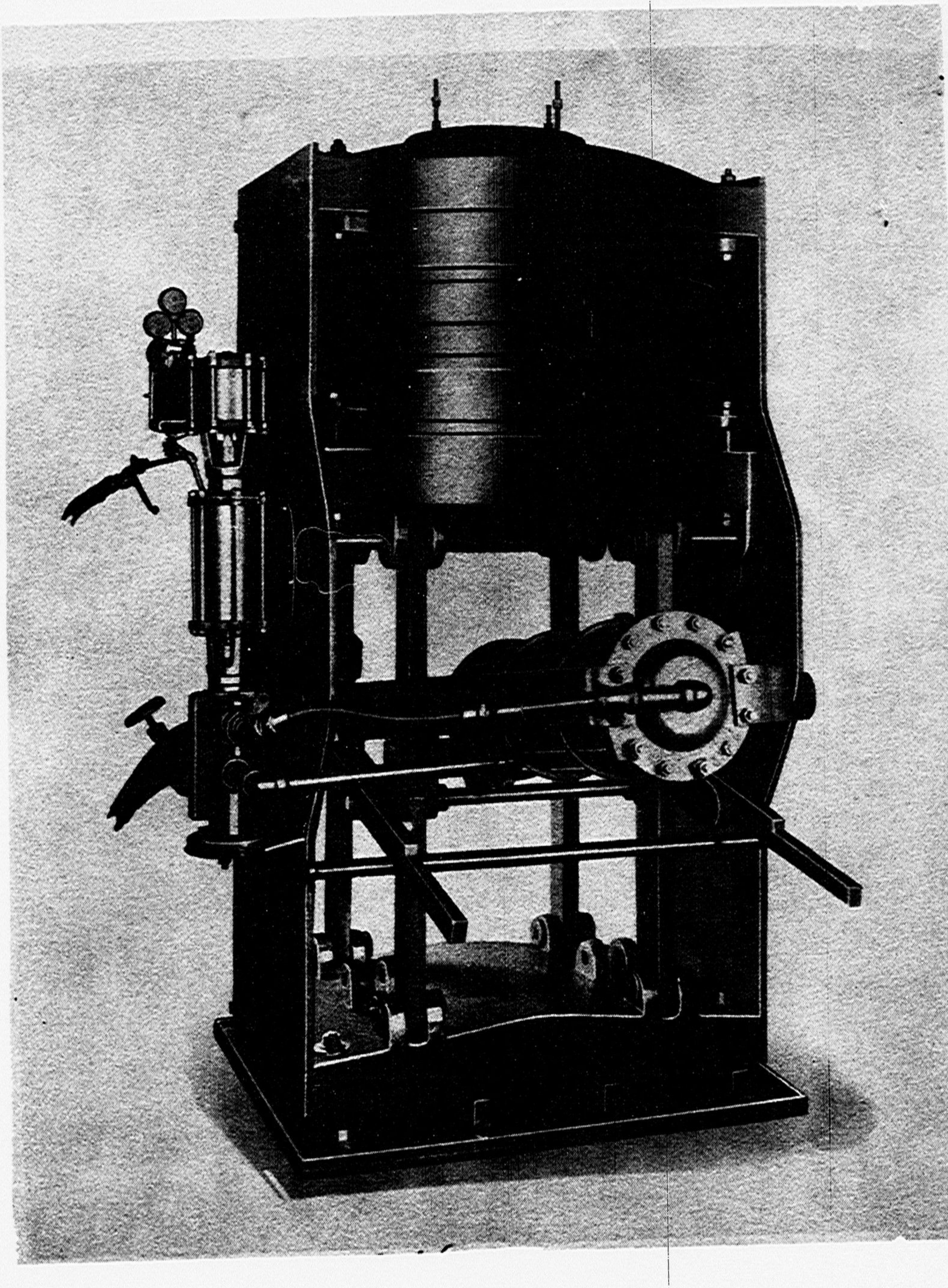
Plf. Tex. 6

101 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk

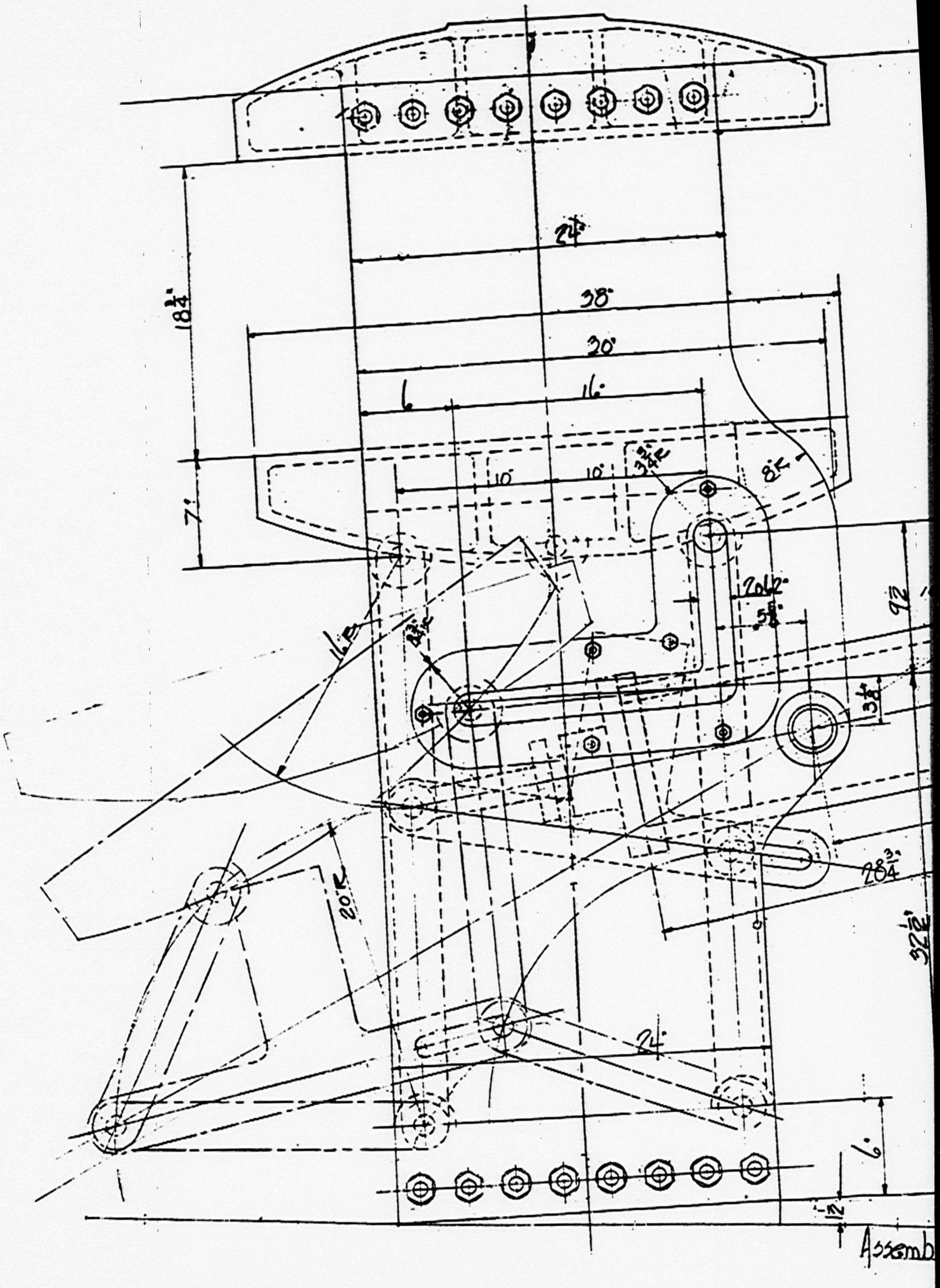


Plf. Ex 7

103 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk



105 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk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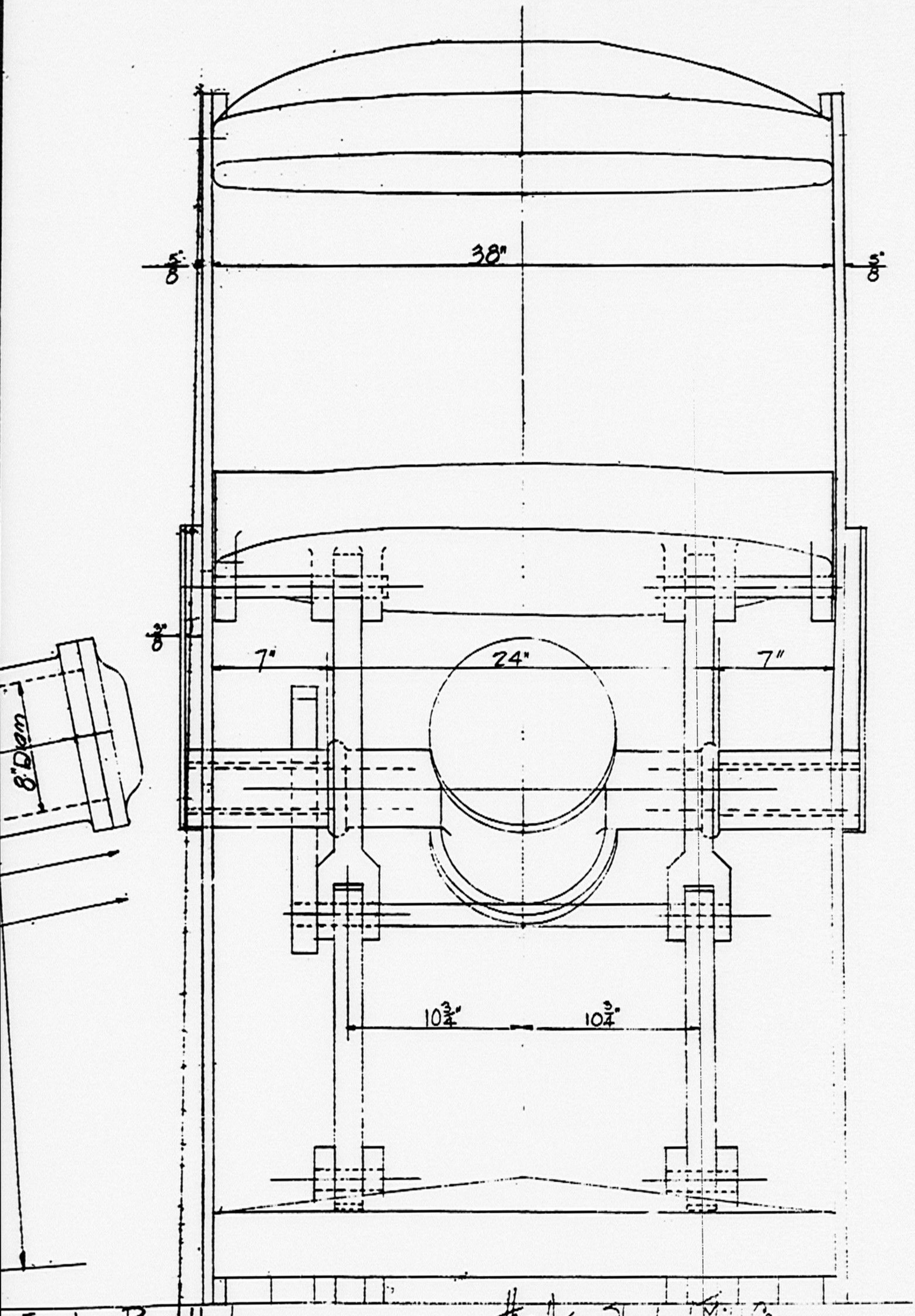
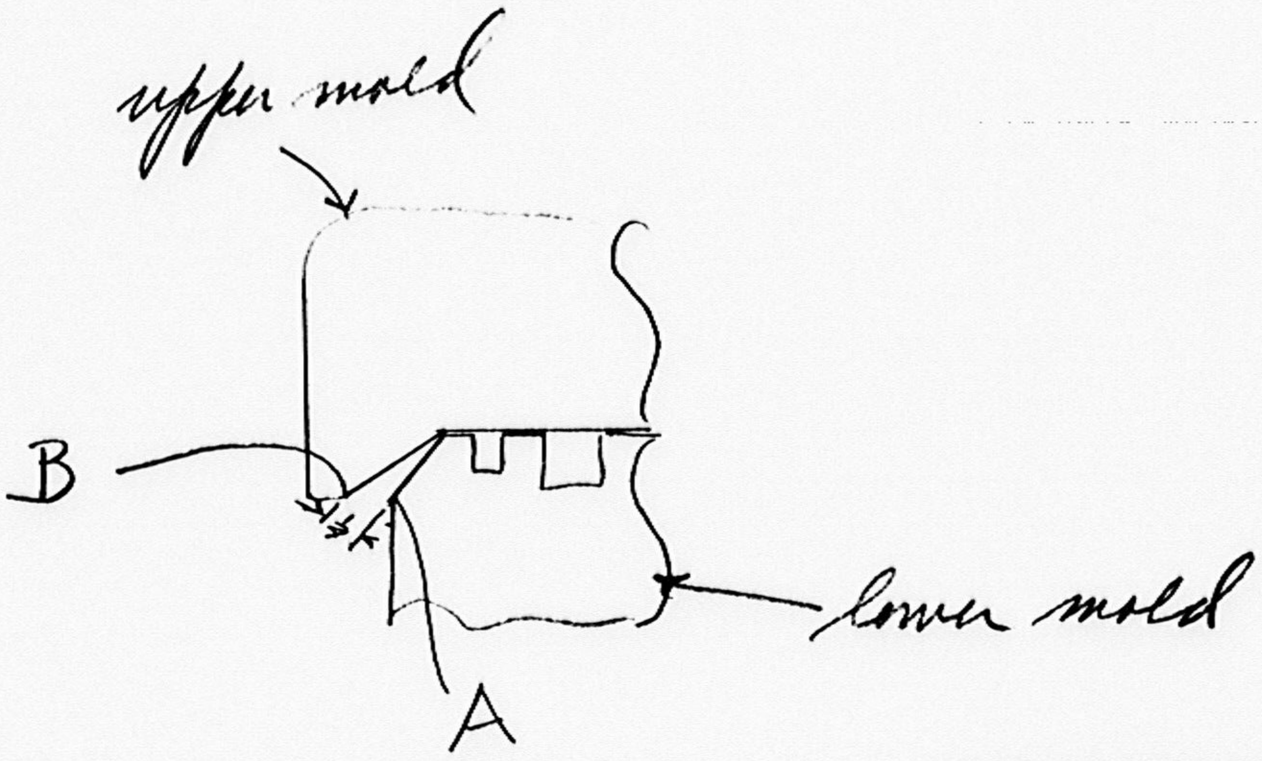


e Equalizer Press Unit

The Akron Standard Mold Co.
Akron, Ohio Apr [redacted] E.M.S.

107 Endorsed: Filed Dec 12-1940 Charles E. Stewart, Clerk



THE AKRON STANDARD MOLD CO.
AKRON, OHIO.

SKETCH OF FLANGE OR MOLD

SCALE
DATE 7-11-40
MADE BY HC Bostwick
DRG. NO. X72-
CHECKED BY

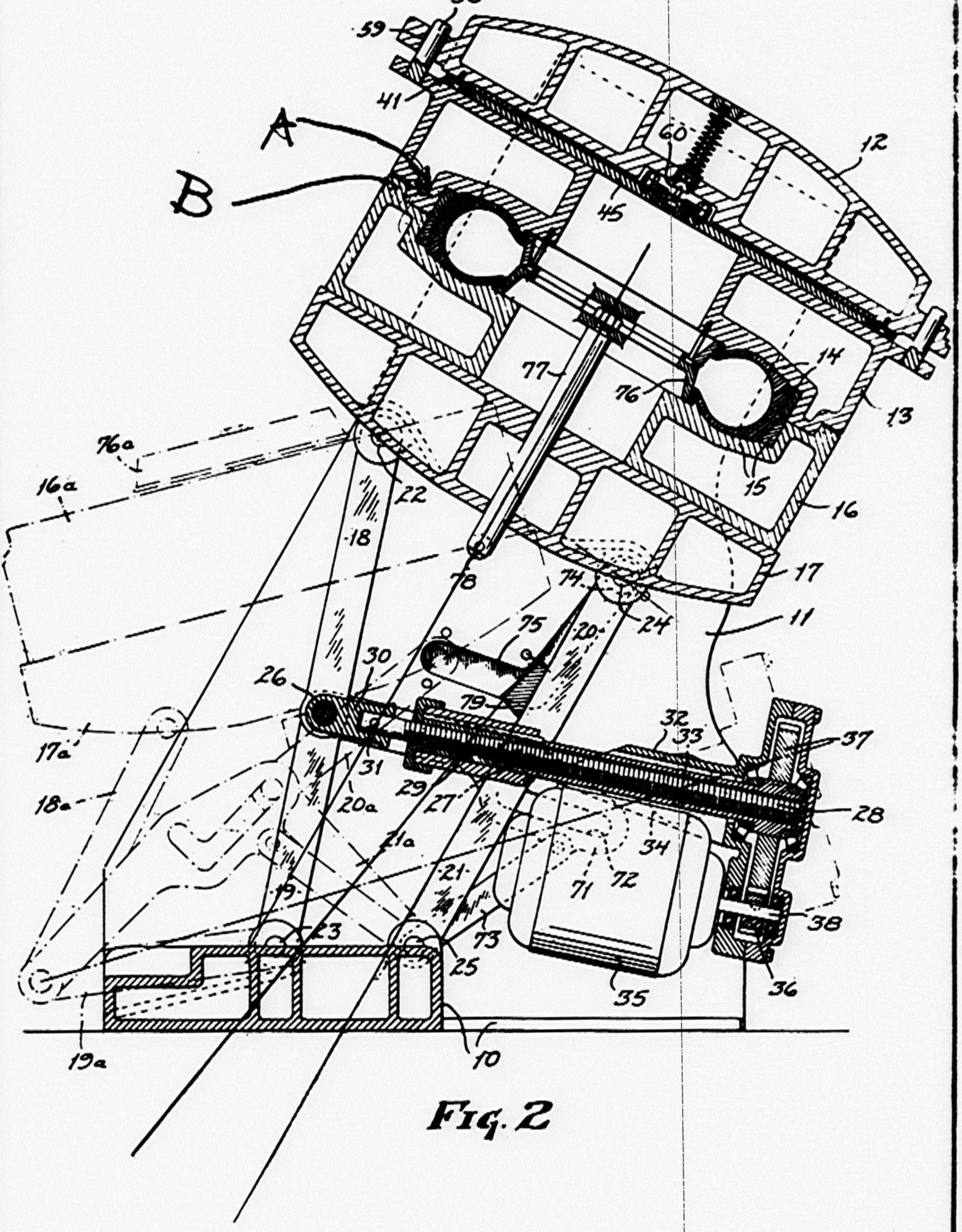


Fig. 2

INVENTOR.
HENRY C. BOSTWICK
BY
Bates, Golrick, & Teare
ATTORNEYS

110 Endorsed: Filed Dec. 12-1940 Charles E. Stewart, Clerk

111 *Ex 12*

Endorsed: Filed Dec 12, 1940 Charles E. Stewart, Clerk.

Civil Action 6629

THE AKRON STANDARD MOLD CO.,

vs.

COE.

Department of Commerce

United States Patent Office

To all persons to whom these presents shall come, Greeting:

THIS IS TO CERTIFY that the annexed is a true copy from the records of this office of the File Wrapper and Contents, in the matter of the Pending Application of Henry C. Bostwick, Filed May 28, 1937, Serial Number 145,241, for Improvement in Toggle Press.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the City of Washington, this thirteenth day of September, in the year of our Lord one thousand nine hundred and forty and of the Independence of the United States of America the one hundred and sixty-fifth.

CONWAY P. COE
Commissioner of Patents.

(Seal)

Attest:

D E WILSON
Chief of Division.

87

NUMBER (Series of 1935)

145241

1937

PATENT No.

DATED

DIV. 15

(EX'R'S BOOK) 140-12

Name HENRY C. BOSTWICK

Ass'r to Akron Standard Mold Company, of Akron, Ohio, a corp. of Ohio

of AKRON

State OHIO

In

TOGGLE PRESS.

ORIGINAL		RENEWED
CATION FILED COMPLETE	MAY 28, 1937	
Petition, Specification Oath, First Fee $30, sheets Drawings	MAY 28, 1937	

Examined and passed for Issue ..., 193 | Reexam'd and passed for Issue ..., 193

Exr. Div. | Exr. Div.

Notice of Allowance ..., 193 By Commissioner. | Notice of Allowance ..., 193 By Commissioner.

Final Fee ..., 193 | Final Fee ..., 193

Attorney BATES, GOLRICK & TEARE 1125 TERMINAL TOWER BLDG CLEVELAND OHIO

Bates, Teare & McBean.

Associate Attorney

No. of Claims Allowed ... Print Claims ... in O.G. Class

Title as allowed

112

113 Endorsed: Mail Division May 28 1937 U. S. Patent Office

May-28-37 227428 B-Check — 30.00

Bates, Golrick & Teare
Patent Lawyers
1125 Terminal Tower Building
Cleveland, Ohio

May 27 1937

Commissioner of patents,
Washington, D. C.

Dear Sir:

In the matter of the application about to be filed by Henry C Bostwick for Toggle Press executed May 26 1937 we hand you herewith by mail the following:

Petition and Power of Attorney, Specification, Oath, 4 sheets of Drawings, Government Fee $30.00.

Respectfully,

BATES, GOLRICK & TEARE

114 Endorsed: Mail Division May 28 1937 U. S. Patent Office.

(Petition and Power of Attorney) (Single)

To the Commissioner of Patents:

Your petitioner, Henry C. Bostwick a citizen of the United States residing at Akron, in the County of Cuyahoga and State of Ohio, whose post office address is c/o Akron Standard Mold Company, Akron, Ohio, prays that Letters Patent may be granted to him for the improvement in a Toggle Press set forth in the annexed specification.

And he hereby appoints the firm of BATES, GOLRICK & TEARE consisting of Albert H. Bates, Albert R. Golrick and Albert R. Teare of Cleveland, Ohio, his attorneys, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to sign the drawings, to receive the patent, and to transact all business in the Patent Office connected therewith.

Signed at Akron, in the County of Summit and State of Ohio this 26th day of May 1937.

HENRY C. BOSTWICK

115 This invention relates to molding and vulcanizing presses and particularly to those wherein the mating mold sections are relatively movable, and wherein one of the sections is tiltable with reference to the other so as to facilitate the insertion and withdrawal of an article.

The invention is shown in connection with a toggle operated press and has for one of its objects the provision of a motor drive wherein the motor is supported independently of the toggles so as to provide sufficient clearance between the mold sections to permit adequate tilting of the lower section for facilitating insertion and withdrawal of an article.

An additional object is to provide a press wherein the the toggle mechanism may be utilized for bringing the mold sections into engagement with each other but where the article forming pressure is exerted by a fluid operated device that operates independently of the toggle mechanism.

A further object is to make a toggle operated press wherein the pressure between the mold sections is obtained entirely by movement of the toggle mechanism, but wherein the position of the stationary mold section may be readily varied or adjusted to insure a uniform contact between all parts of the mold sections at the completion of the closing operation.

116 Referring now to the drawings, Fig. 1 is a front view of a press which embodies one form of my invention; Fig. 2 is a section taken on the plane indicated by the lines 2-2 in Fig. 1, the closed position of the press being indicated by the full lines and the open position by broken lines; Fig. 3 is a detailed section on an enlarged scale showing the mechanism for operating one of the mold sections independently of the toggle mechanism; Fig. 4 is a section taken on a plane indicated by the line 4-4 in Fig. 3, and Fig. 5 is a section taken on a large scale on a plane indicated by the lines 5-5 in Fig. 4; Fig. 6 is a front view partly in section of a press which embodies the modification of my invention, that part of the press which is illustrated in section being taken on a plane indicated by the line 6-6 in Fig. 7; Fig. 7 is a section taken on the plane indicated by the line 7-7 in Fig. 6;

and Fig. 9 is a section taken on a plane indicated by the line 9-9 in Fig. 2.

Referring now to Figs, 1 to 5 inclusive, 10 represents a base to which are attached the lower ends of a pair of upwardly and rearwardly inclined side frame plates 11. A press head carrier 12 is attached to the upper ends of the side plates and is arranged to support an upper press head 13, which carries a mold section 14. The head 13 comprises a steam jacketed member, which is adapted for vulcanizing purposes. A mating lower mold section 15 is shown as being attached to a hollow head 16, which in turn is adapted to be adjustably supported on a carrier 17. The lower mold section head and carrier are mounted for movement as a unit toward and away from the upper section. The mechanism for actuating the lower unit is so arranged that the unit is tilted in the course of its movement so as to present the molded article in a more favorable position for insertion or withdrawal with respect to the mold.

117 The mechanism for reciprocating and tilting the lower mold section preferably comprises toggle units that are formed by double pairs of links 18, 19, 20, and 21, which are pivotally connected to the lower section and to the base respectively at 22, 23, 24 and 25. The pair of links 18 and 19 are interconnected by a pivot 26, while each pair of links 20 and 21 is interconnected by a pivot 27. In the closed position of the press, the links occupy the full line position, as shown in Fig. 2, while in the open condition the links occupy the position shown by broken lines 18-a, 19-a, 20-a, and 21-a respectively. Similarly the position of the lower head and carrier in the closed condition of the press is shown in full lines in Fig. 2; while the open condition is shown by the broken lines 16-a and 17-a.

The mechanism for actuating the toggles comprises a screw and nut couple in the form of a threaded spindle 28 and a coacting threaded sleeve 29. The spindle projects beyond one end of the sleeve and is connected to the toggle pivot 26, as by a swivel block 30 and a pin 31. The screw and nut couple forms an extensible device that is enclosed within a housing 32, which in turn is journaled in the frame at 33 on trunions 34. The housing supports an electric motor 35 and encases reduction gears 36 and 37 which provide an operative connection between the motor shaft 38 and the sleeve 29. The motor is reversible and is provided with suitable limit switches, which are adapted automatically to disconnect the source of current supply to the motor, as the movable mold section approaches its upper and lower limits of travel.

118 In the press construction illustrated in Figs. 1 and 2, the toggles are utilized for moving the lower mold section into close fitting but not into pressing engagement with the upper section. The pressing engagement is effected by a fluid actuated mechanism, which forces the upper section against the lower section after the pairs of toggle links have reached a straight line position.

One form of mechanism for applying pressure to the upper section embodies a diaphragm 40 which extends between the carrier 12 and the upper head 13 and which is fixed to the carrier at its outer periphery as by an annular clamping plate 41, and which is fixed at its inner periphery to the plate 45 which in turn rests upon the upper surface of the head 13, as by securing members 49. The plate 45 is shown as having a central aperture 47 into which a sleeve 48 extends, and the sleeve in turn carries the flange through which the diaphragm securing bolts 49 may be passed. The internal portion of the sleeve may be threaded to receive a plug 50 so that the plug, sleeve, and diaphragm coact to provide the bottom wall of a chamber 51, the top wall of which is formed by the under side of the carrier 12. Air under pressure may be supplied to such chamber through a conduit 52 (as shown in Fig. 3). Controlled by an external value not shown.

The diaphragm comprises a wall of a fluid tight compartment which may be utilized as an expansion chamber for exerting a continuous yieldable pressure against the mold sections after the toggle links have been straightened during the closing movement of the press. Accordingly, the pressing units are so arranged with respect to each other that the lower unit lifts the upper mold section and head as a unit, until the head is lifted off the seats which comprise nuts 55 on bolts 56. The extent of movement of the head off the seats 55 is sufficient to allow a slight return movement under the action of the diaphragm 40; this return movement being utilizable to perform the final step in the pressure exerting process.

119 The bolts 56 extend through passageways 57 adjacent the corners of the carrier member 12. Intermediate the corner bolts, I have shown suitable guide pins 58 which may be carried by the head 13, and may extend through suitable apertures 59 in the carrier 12. The bolts 56, therefore, support the upper mold section, and yet allow a slight reciprocation thereof after the lower mold section has been elevated to the extreme limit of its upward travel.

To release the pressure within the chamber 51 at the completion of a pressing operation, I utilize a valve 60 which is carried on a stem 61, and which is adapted to bear against a seat 62, under the action of a spring 63. The fluid pressure within the chamber also acts to retain the valve 60 against its seat. The valve however, is adapted to be opened by a predetermined movement of the plate 45, the opening occurring by the engagement of a part that is carried by the plate with a stop on the stem 61. The part referred to is illustrated, as a washer 64, which is held in place within the sleeve 48 by the plug 50. The stop referred to on the stem may comprise a nut 65 which is adjustably positioned on the stem, and which is adapted to occupy a pocket 66 in the plug; thus, whenever the valve 60 is unseated, the fluid within the chamber 51 is allowed to escape to the atmosphere through the passageways 67 and 68.

To permit slight reciprocation of the upper mold section with reference to the carrier 12, the plate 45 has a peripheral flange 69, which overlies an inwardly extending flange 70 on the ring 41 as shown in Fig. 3. Prior to the assembly of the upper mold section to the carrier, the flange 69 rests on the flange 70 and thereby supports the plate 45 with respect to the carrier 12, but the relationship is such that when the head 13 rests upon the seats 55, there is a slight clearance between the flanges 69 and 70, at which time the weight of the plate is supported by the bolts 56.
120 However, as the upper section is moved under the influence of the movement of the lower section, the clearance between the flanges 69 and 70 is increased by an amount, which is equal to the extent to which the upper section is lifted off the seats 55. This amount can be adjusted to permit the desired return movement of the upper section under the influence of the diaphragm 40.

To interconnect the toggle link pivots 26 and 27 so as to synchronize the movement therebetween, while obtaining a predetermined relationship between the mold sections at the time of separation, I have shown a pair of links 71, each of which is pivotally connected to the pivot 26, and each of which is provided with a cam slot 72, in which one of the pivot pins 27 extends. The rearward end of each link 71 is then connected to the pivot 25 by a link 73, as shown in Figs. 1 and 2. The function of the cam slot 72 is to maintain the proper relationship between the pivots 26 and 27, while the rollers 74 on the pivot pins 24 move along the cam slots 75 in the side plates 11; the relationship being such, that whenever the press is opened the lower section tilts gradually and shifts laterally (toward the left in Fig 3.) as it moves away from the upper section until clearance is obtained, then it tilts abruptly forwardly, so as to facilitate removal of the article therefrom.

To eject an article that is held within the lower mold section, I have shown an ejector ring 76 which rests upon the head 16, and which is provided with a stem 77 that is slidably positioned in apertures within the carrier 17. The lower end of the stem projects beyond the bottom of the carrier and may be provided with a roller 78 that is adapted to engage a block 79, during the opening operation of the press. The block may extend across and be attached to the links 20 at such height that it is engaged by the roller 78, during the forwardly abrupt tilting movement of the roller section, as a result of which, the stem projects sufficiently far beyond the carrier 17 so that the ejector ring 76 is lifted off the head and the molded article is ejected from the mold section.

121 The operation of the press when made according to Figs. 1 and 2 is as follows: Assuming that the press is in open position, as is shown by the broken lines in Fig. 2, then the article to be molded is placed upon the ejector ring and within the lower mold section, and thereupon current is supplied to the motor so as to rotate it in a direction to elevate the lower mold section. During the elevating movement, the first motion of the lower mold section is a tilting one, and this motion continues until the rollers 74 arrive at the vertical reach of the cam slots 75, at which time the upper surface of the lower mold section is nearly parallel with the bottom surface of the upper mold section, whereupon continued operation of the motor elevates the lower section until the toggles are straightened.

So long as the lower section remains out of contact with the upper section, the upper section is supported on the abutments 55 during which time the washer 64 is in engagement with the stop 65 on the safety valve and is holding the valve 60 off its seat. As soon as the lower section has lifted the upper section off the seats 55, however, the valve 60 will be closed automatically under the action of the spring 63, because the extent of movement of the lower section with respect to the carrier 12 has raised the washer 64 out of contact with the stop 65. When the mold is thus closed, air under pressure is admitted into the chamber 51 through the conduit 52, and thereupon pressure is exerted against the diaphragm 40, to the plate 45, through the head 13, and thence to the upper mold section until the vulcanizing operation is completed. It is to be understood that steam is to be admitted to the chambers in the heads 13 and 16 during the vulcanizing operation.

122 At the completion of the vulcanizing operation, the source of air supply to the chamber 51 is cut off and the motor 35 is operated in a reverse direction to open the mold sections. At the start of the opening operation, the upper head is lowered due to its own weight until it engages the seat 55, and during such movement, the washer 64 engages the abutment 65, and thereby opens the valve 60 to exhaust the air in the chamber 51. In the meantime, the lower section continues its downward vertical and tilting movement until it eventually reaches the position shown by the broken lines in Fig. 2. During the latter part of its movement the roller 78 on the ejector pin 77 engages the block 79, and thereby raises the molded article off the lower mold section. At the completion of the movement, the current supply to the motor is disconnected in any suitable way.

In Figs. 6 and 7, I have shown a modified form of press construction, wherein the fluid pressure actuated diaphragm is eliminated, but wherein an adjustment is provided between the upper head and its carrier, so as to obtain automatically the desired degree of pressure between the upper and lower sections at the time the toggles approximate a straight line position, during the closing movement of the press. In Figs. 6 and 7, the entire press construction is not illustrated, it being understood that the mechanism for moving the lower section is the same as that heretofore described. It is also to be understood that the parts illustrated in Figs. 6 and 7 which correspond to those of Figs. 1 and 2 bear the same identifying numerals.

123 The adjustable feature of the upper mold section with respect to its carrier may comprise a spider like member that is interposed between the carrier 12 and the head 13, and that is attached to the carrier at spaced intervals by bolts 80. The interposed member is shown as having an inner rim 81, an outer rim 82, and connecting spokes 83. Each spoke has a slot 84 extending lengthwise thereof, and each slot has side walls and a bottom, the side walls being parallel and the bottom wall being tapered. A tapered key 85 is slidably movable in each slot, and each key may be locked in its adjusted position by means of adjusting nuts 86, on a bolt 87 that extends through an opening in an arm 88. Each bolt or stud extends radially from the rim 82, and is rigidly positioned therein. The spacing spider which may be designated as an entirety by the numeral 90, may be attached to the head 13 by securing members 91.

To obtain the desired degree of proximity between the upper and lower mold sections, as the toggles approach a straight line position, the bolts which support the upper head are loosened and the keys 85 are slid along the slots 84, and then are locked in place upon the studs 87, whereupon the bolts 80 are tightened as much as possible. The adjustable keys provide a simple and economical means for assuring accurate control of the pressure between the meeting faces of the mold section, solely by the operation of the motor.

124 An advantage of a press which is made in accordance with my invention is the fact that the lower mold member, when moved to the lower limit of its travel occupies a position, which enables an operator to insert or withdraw an article with minimum effort. A further advantage is the fact that the mold sections may be accurately registered at the time of closing, and that the pressure may be equalized at all points on the sections.

125 *I Claim:—*

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1. A press having an upper mold member, a lower mold member, a support for the upper member, mechanism for reciprocating and tilting the lower mold member, said

mechanism being adapted and arranged to move the lower mold member into engagement with the upper member and to lift it off said support, and means acting independently of said mechanism for pressing the mold members together.

2. In a press, an upper mold member, a lower mold member, a frame, means for movably supporting the upper member upon the frame, toggle supports for the lower member, a motor pivotally mounted on the frame and operatively connected to the toggles for actuating the lower mold member, the toggles being so arranged that when they are moved to a straight line position, the lower mold member supports the upper mold member in raised position, and fluid actuating means for pressing the mold members together.

3. In a press, a lower mold member, and an upper mold member, a frame for supporting the upper member, toggle means for moving the lower mold member, and means interposed between the upper member and the frame for controlling the pressure between the mold members when the press is closed.

126 4. In a press, the combination of a frame comprising a base, side plates, and a top, an upper mold member carried by said top, a lower mold member, toggle means for moving the lower member with respect to the upper member, a motor pivotally mounted in the frame, means operatively connecting the motor to the toggle means, and means interposed between the upper mold member and the frame top, and adapted to be moved with respect to the top for regulating the pressure exerted between the mold members when the press is in closed position.

5. In a press, the combination of a frame, an upper mold member movably carried thereby, a lower mold member, means for moving the lower member with respect to the upper member, an expansible fluid pressure chamber disposed above the upper mold member and means for supplying fluid under pressure to said chamber adapted to exert clamping pressure between the mold members, and means actuated by relative separation of the upper mold member and frame for releasing the fluid pressure within the chamber whenever the press is opened.

6. In a press, the combination with a frame, of an upper mold section carried thereby, a lower mold section, means for moving the lower section into engagement with the upper

section and for tilting the lower section during part of such movement, toggle means for moving the lower section, a stripper ring carried by the lower section, said ring having a stem centrally guided within the lower section, and an abutment carried by one of the toggle arms for engaging said stem during the tilting movement of the lower section of the press for projecting the stripper ring.

[Matter enclosed between rules erased in copy.]

127 7. In a press, the combination of a frame having a base, side plates and a top, an upper press head movably suspended from said top, a lower press head, means for moving the lower head into engagement with the upper head so as to support it independently of the top, a diaphragm carried by the top and forming an expansible chamber therewith, a source of fluid supply for the chamber, said diaphragm being adapted to act against the upper head and to exert predetermined pressure between it and the lower head while the upper head is supported by the lower head, and means for releasing the pressure within said chamber upon movement of the lower head away from the upper head.

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8. In a press, the combination of a frame, an upper press head carried thereby, a lower press head, toggle means for moving the lower head with respect to the upper head, and means interposed between the upper head and frame for varying the position of the upper head with respect to the frame.

9. In a press, the combination of a frame, an upper press head carried thereby, a lower head, means for moving the lower head into engagement with the upper head, and a plurality of independently adjustable connections between the head and frame for varying the position of the head with respect to the frame, said adjustable means including tapered keys, each of which is adjustable from a point outside the head.

128 10. In a press, the combination of a frame, including a base, side walls, and a top, an upper press head carried by the top, a lower press head, means for moving the lower head into engagement with the upper head and means disposed between the upper head and the top for regulating the clamping pressure which is exerted between

the heads when the press is closed, said last named means including a plurality of tapered keys, each of which is radially adjustable with respect to the head and means for locking the keys in any adjusted position.

11. In a press, the combination of a frame comprising a base, side walls and a top, a press head carried by the top, a second press head, means for moving the second head into engagement with the first named head, a member disposed between the first named head and top, said member having radially extending slots therein, a key movably mounted in each slot and means for adjustably locking each key in any desired position in one of the slot.

12. In a press having a frame, a pair of mold members, and toggle means for moving one of the mold members with respect to the other member, the combination of an electric motor supported by the frame, a screw and nut couple operatively connecting the motor to an intermediate pivot on one of the toggles, guiding means connecting the intermediate pivots of the toggles and including a member having a cam slot therein for receiving an intermediate pivot of one of the toggles, and additional guiding means for the movable mold member, said guiding means including a cam slot on the frame, and a roller carried by the head and movable in said slot.

129 13. In a press having a frame, an upper press head carried thereby, a lower press head movable with respect to the upper head, the combination of a pair of toggle members, each pivotally connected to the lower head and to the frame respectively, and each having an intermediate pivot, a screw shaft pivotally connected to one of the intermediate pivots, a motor pivotally supported on the frame, gearing operatively connecting the motor to the screw shaft, a system of linkage including a member having a cam slot therein for connecting the intermediate pivots together so as to cause movement of them in timed relationship to the movement of the lower head, and guiding means for the lower head, said means including a cam slot in the frame and a member that is co-extensive with a pivotal connection between one of the toggles and the lower head for coacting with the cam slot in the frame to impart a reciprocating and tilting movement of the head during the opening and closing operation of the press.

130 14. In a press having a frame, an upper press head, a lower press head mounted for reciprocal and tilting movement within the frame, the combination of a pair of toggle devices operatively connecting the frame to the lower head, a motor support having trunions journalled in the frame, a screw shaft journalled in the support, gearing operatively connecting the motor to the screw shaft, one end of the screw shaft being operatively connected to an intermediate pair of pivots of one of said toggle devices, guiding means on the frame for the lower head, said means including a roller on the frame, not disclosed and a cam slot on the frame, a system of linkage interconnecting the intermediate pivots of the toggles and including a link that is pivotally connected to the frame and also including a member having a cam slot therein, the cam slot in the last named member being adapted to produce movement of the intermediate toggle pivots in unison during a part of the movement of the lower head and to produce movement with relation to each other during another portion of the movement of the lower head during the opening and closing operation of the press.

131 15. In a press, a lower mold member, an upper mold member, a frame, toggle means for moving the lower member with respect to the upper member, means pivotally mounted on the frame independently of the toggle means for operating the toggle means, and means acting on the upper member for varying the position of it with respect to the lower member, said last named means being operable independently of the toggle operating means.

[Matter enclosed between rules erased in copy.]

132 In testimony whereof, I hereunto affix my signature.

HENRY C BOSTWICK
Inventor.

STATE OF OHIO,
County of Summit, ss:

Henry C. Bostwick, the above named petitioner, being duly sworn, deposes and says that he is a citizen of the United States and a resident of Akron, in the County of Summit and State of Ohio, and that he verily believes himself to be the original, first and sole inventor of the improvement in a toggle press described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used before his invention or discovery thereof; or patented or described in any printed publication in any country before his invention or discovery thereof, or more than two years prior to this application; or patented in any country foreign to the United States on an application filed more than twelve months before this application; or in public use or on sale in the United States for more than two years prior to this application; and that no application for patent on said improvement has been filed by him or his representative or assigns, in any country foreign to the United States.

HENRY C BOSTWICK

Sworn to and subscribed before me this 26th day of May, 1937.

KATHRYN G. MULLALY,
Notary Public.

[illegible] of drawings as
originally filed

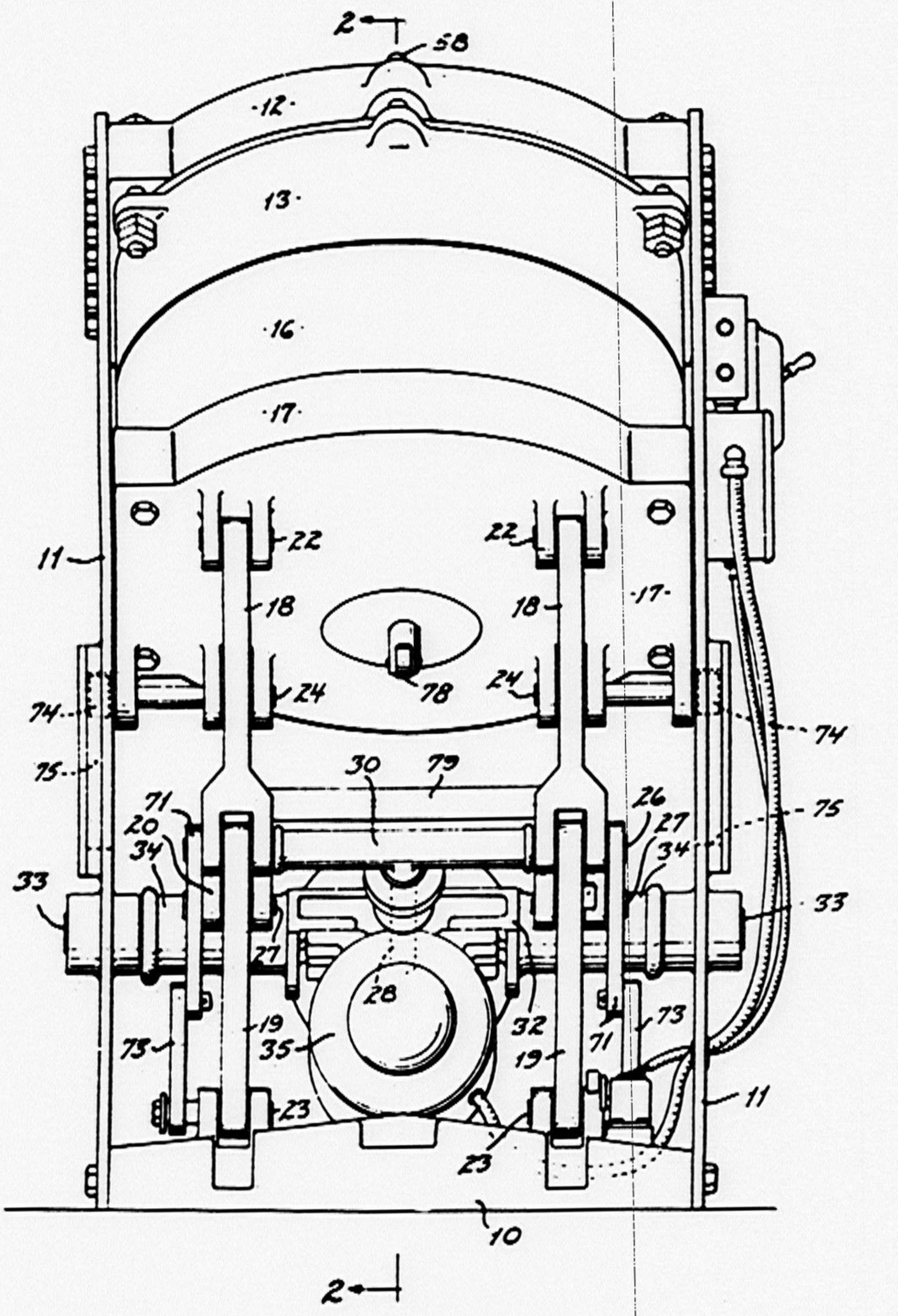

Fig. 1

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145241

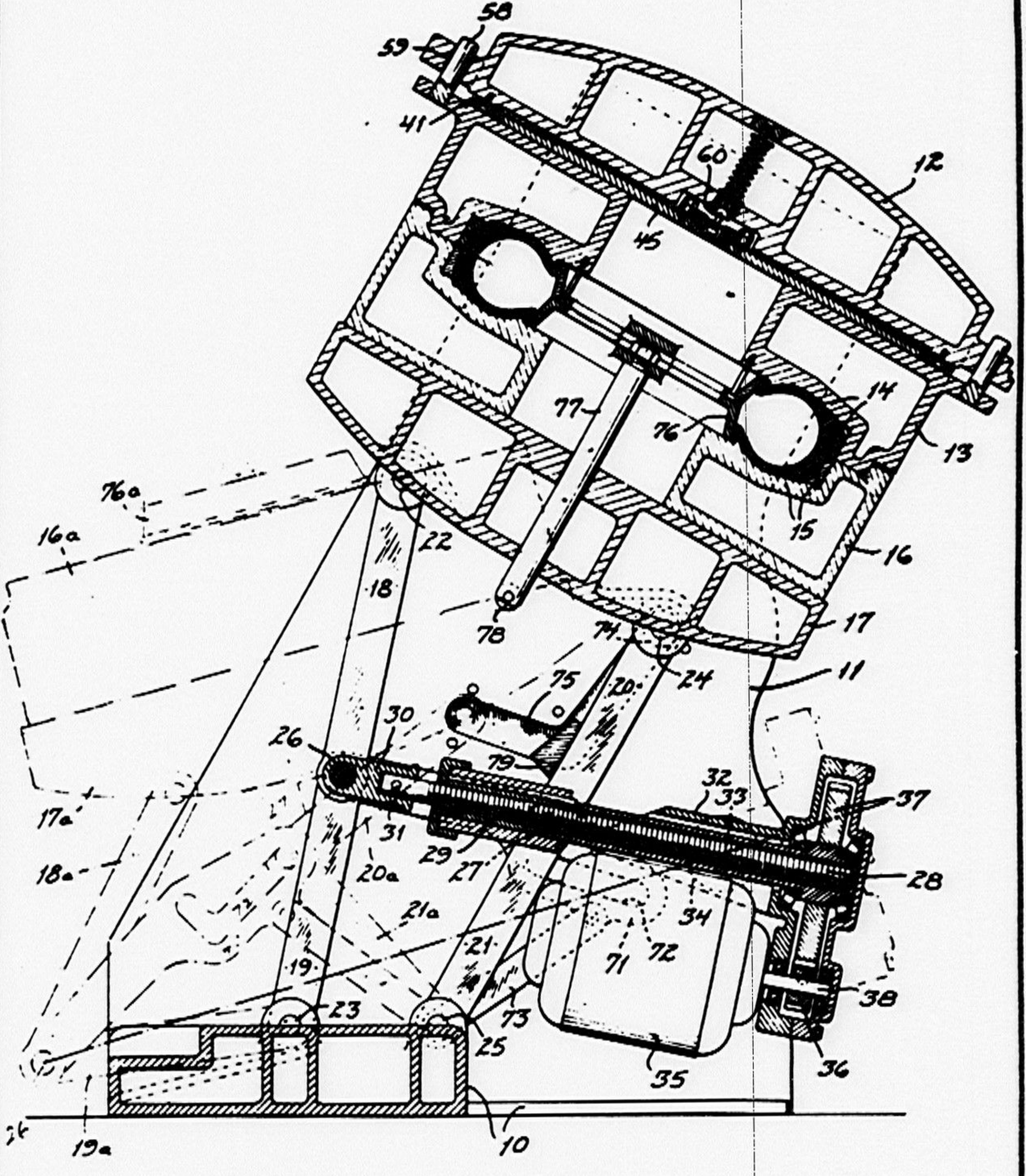

FIG. 2

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Print of drawing as originally filed.

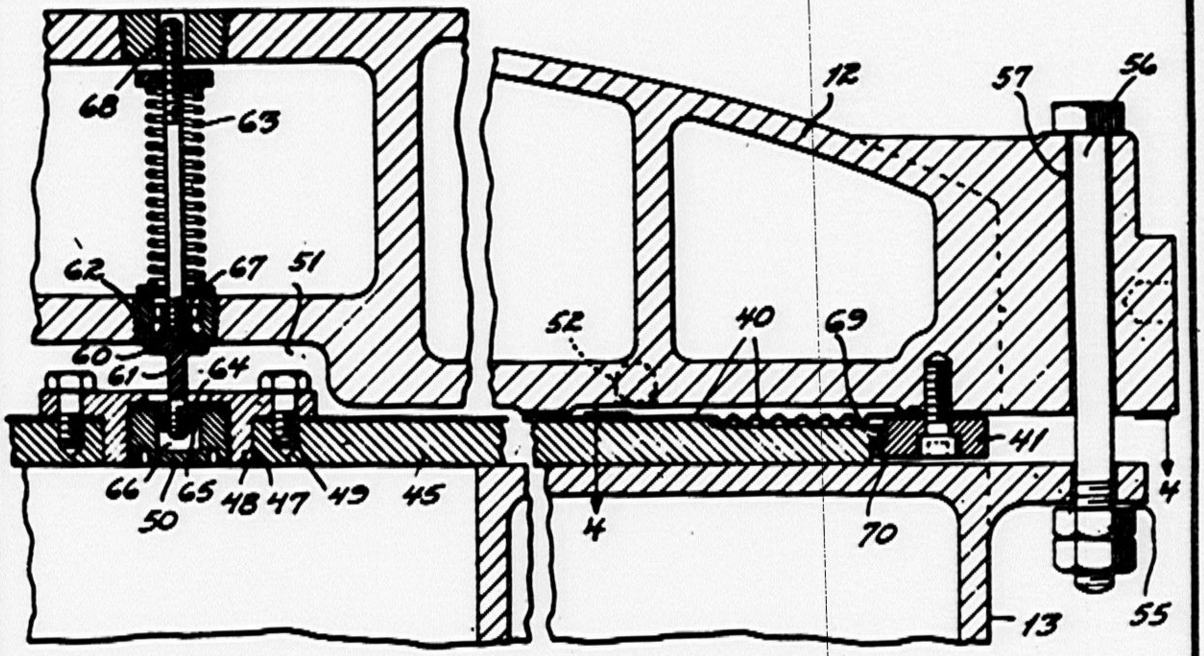

Fig. 3

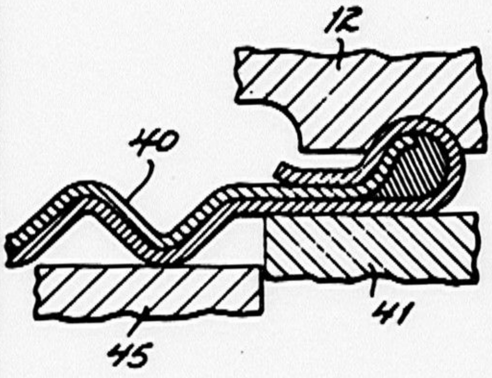

Fig. 5

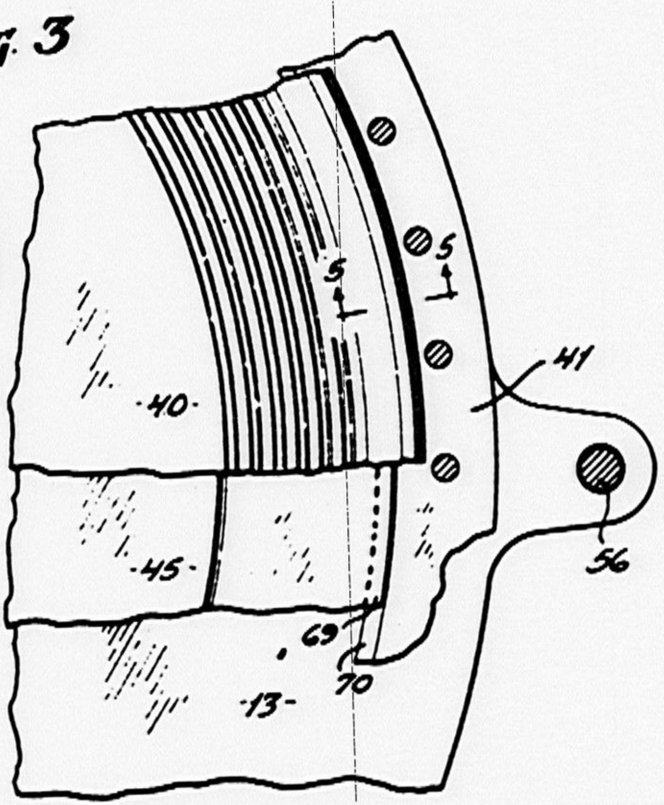

Fig. 4

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Print of drawing as originally filed.

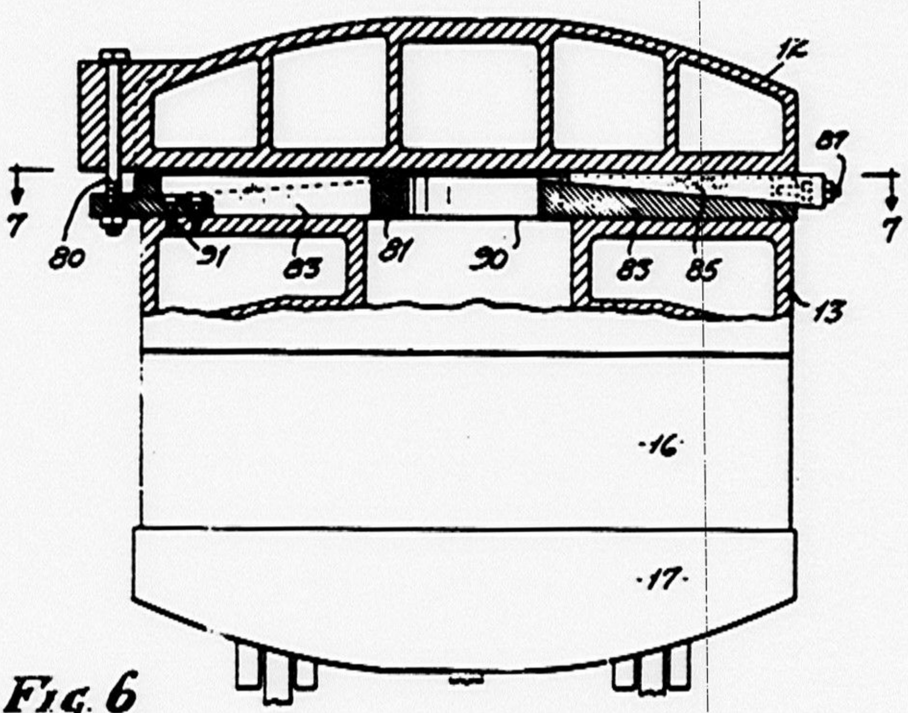

FIG. 6

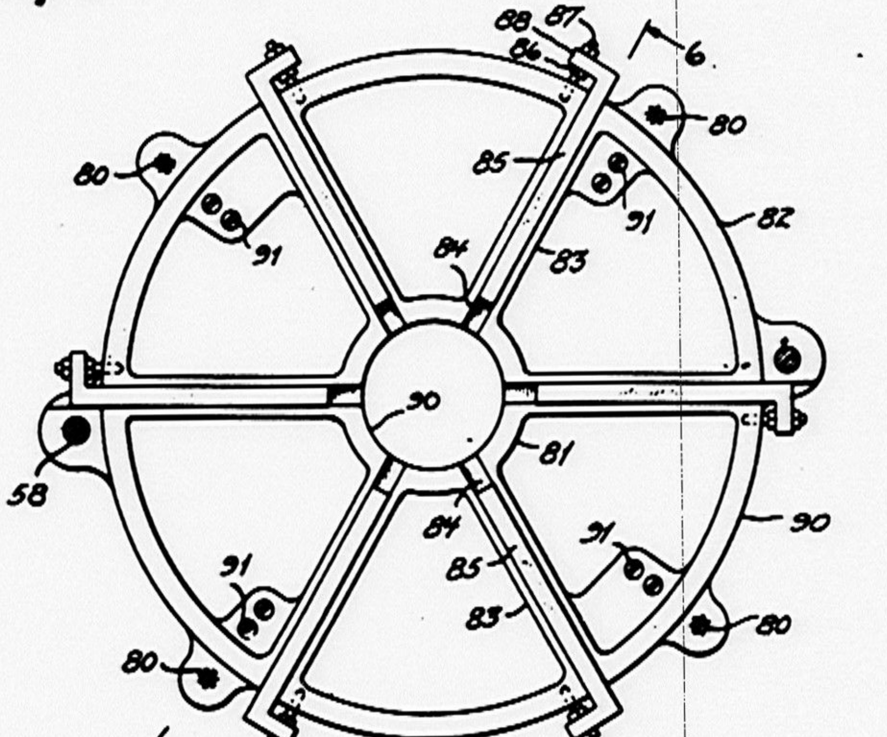

FIG. 7

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137 Endorsed: Filed Jul 28 1937

Div. 15 Room 4897 260 *REM/FD Paper No. 3

Department of Commerce
United States Patent Office
Washington

July 28, 1937

Applicant: Henry C. Bostwick

Ser. No. 145241
Filed May 28, 1937
For Toggle Press

Bates, Golrick & Teare
1125 Terminal Tower Bldg.
Cleveland, Ohio

This application has been examined.

References made of record:

Vinal	2,083,676	June 15, 1937 (Filed Oct. 23, 1933)	18-16
Hopkinson	1,777,310	Oct. 7, 1930	18-17
Maynard	1,987,908	Jan. 15, 1935	18-17 WC
Iverson	2,058,233	Oct. 20, 1936	18-17 WC
Wellington et al	1,361,122	Dec. 7, 1920	18-16 xr
Hopkinson	1,980,203	Nov. 13, 1934	18-17 ux

Claim 1 is rejected as functional. The term "adapted" line 4 renders this claim functional.

Claim 1 is further rejected on Maynard since there would be no invention in constructing the upper head of the patent in the manner claimed in view of the teaching of Vinal. Claims 2, 3, and 8 are rejected as fully met by Vinal.

Claim 4 is rejected on Maynard in view of Vinal for the reason stated in the rejection of claim 1.

Claims 5 and 7 are rejected on Wellington. This patent discloses movable upper and lower members, an expansible fluid pressure chamber exerting clamping pressure on the members, and means for relieving the pressure. Broadly to do automatically what has heretofore been done by hand is not patentable invention.

Claim 6 is rejected on Maynard. In the combination claimed, the stripper and the means for operating it disclosed in the patent are the full equivalent of applicant's.

138 Claim 9 is objected to as indefinite. Which "head" does applicant refer to in line 5?

Claims 9, 10, and 11 are rejected on Maynard. In the combination claimed, the nuts 26 for adjusting the position of the upper head disclosed by Maynard are the full equivalent of the tapered keys recited in these claims.

Claims 12, 13, and 14 are rejected on Maynard. This patent discloses an upper press head, a lower press head, and toggle means for actuating the lower press head. In the combination claimed, the toggle means disclosed by Maynard is the full equivalent of applicant's. Any novelty that may reside in applicant's toggle means can not be depended upon to confer patentability upon the entire combination. See in re McNeil, 1902 C. D. 563.

Claim 15 is rejected as fully met by either Maynard or Vinal.

Since no generic claims have been allowed, division and election of species is required between

(I) Claims 2, 5, and 7 specific to Figs. 1 to 5; and

(II) Claims 9, 10, and 11 specific to Figs. 6 and 7.

ALDEN E. IMUS

REM *Acting Examiner.*

139 Endorsed: Mail Division Sep 29 1937 U. S. Patent Office

Endorsed: U. S. Patent Office Filed Sep 30 1937 Division XV.

Room No. 4897, Div. 15,
Application of Henry C. Bostwick,
Serial No. 145,241,
Filed: May 28th, 1937,
For: Toggle Press,
Last Office Action: July 28th, 1937,
Commissioner of Patents,
Washington, D. C.
Sir:—

In the matter of the above entitled application, please amend as follows:

Claim 1, line 4, after "adapted" insert—and arranged—.

Claim 5, line 2, before "carried" insert—movably—. Line 6, cancel "automatically". Same line, after "means" insert—actuated by relative separation of the upper mold member and frame—.

Claim 7, line 10, after "means" insert—actuated by a predetermined relative separation of the top and upper press head—. Line 11, cancel "automatically".

Claim 12, line 1, cancel "the combination of" and substitute—having—. Line 2, before "toggle" insert—and—. Line 3, before "an" insert—the combination of—.

Claim 13, line 1, cancel "the combination of", and substitute—having—.

Line 3, before "a" insert—the combination of—.

Claim 14, line 1, cancel "the combination of" and substitute—having—. Line 3, before "a" insert—the combination of—.

Cancel claims 2, 3, 4, 8 to 11, inclusive, and 15.

Add the following claim:

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140 16. In a press, a frame, an upper mold member movable upwardly and downwardly on the frame, a lower mold member, means for moving the lower member to open and close the press, the lower member, when raised, operating to raise the upper member a short distance, an expansible fluid-pressure chamber associated with the upper mold member, means for supplying fluid under pressure to said chamber to exert clamping pressure between the mold members when the press is closed, means for releasing the pressure in the chamber during the opening of the press and means actuated by said short upward movement of the upper mold member for rendering said releasing means ineffective.

[Matter enclosed between rules erased in copy.]

Election is made in favor of the first group of claims mentioned in the requirement for division. The right is reserved to reinstate these claims upon allowance of a generic claim, or to include the claims in a co-pending application.

Claim 1 has been amended to remove the functionality of the portion referred to. Reconsideration of the merits of claim 1 is requested, because it appears new to provide a press, the lower mold member of which tilts, and which has means acting independently of the tilting mechanism for pressing the members together. In Vinal neither mold tilts. In a tilting-mold press the mold members may not be brought together as accurately or with as uniform pressure as can be effected when the molds are guided for movement toward each other in a straight line. In other words the tilting presents a special problem. No solution to this special problem is suggested by Maynard, nor is it by Vinal in view of the fact that Vinal does not tilt the lower mold.

Claims which recite a special means for tilting the lower mold, together with independent means for pressing the mold members together, have been cancelled.

Claims 5 and 7 have been amended more clearly to distinguish them from Wellington. These claims recite that

> releasing of clamping pressure is accomplished by
> 141 relative separation of the upper mold member and
> an upper part of the frame.

Wellington does not suggest any such separating movement of corresponding parts, or any useful operation performed thereby.

Claim 6 is presented for reconsideration. Maynard has no central guide for the stem of a stripper ring, nor is the mechanism which Maynard uses to move a stripper operated by contact with a portion of a toggle mechanism which moves the lower mold. Applicant has greatly simplified the stripper-moving mechanism and has obviated the necessity for the erection of a platform such as 52 in Maynard, for operating the stripper.

Claims 12, 13 and 14 now recite combinations which do not include the upper and lower press heads and toggle means for actuating the lower press heads. These parts are stated only in a manner necessary to indicate the kind of press mechanism applicant has improved.

New claim 16 calls for the arrangement of an upper mold, which is movable on the frame carrying the upper and lower molds, and wherein fluid pressure is rendered effective consequent upon a raising movement of the upper mold. Vinal appears to be the only reference that is relevant to the claim. In that patent admission of pressure fluid to the cylinder 20 is unaffected by movement of any mold member.

Respectfully submitted,

HENRY C. BOSTWICK,

By: BATES GOLRICK & TEARE
Attorneys.

Cleveland, Ohio,
GMS:UMG

142 Endorsed: Filed Jan 14 1938

Div. 15 Room 4897 260 REM:bs Paper No. 5

Department of Commerce
United States Patent Office
Washington

Applicant: Henry C. Bostwick

Ser. No. 145 241
Filed May 28, 1937
For Toggle Press

Bates, Golrick & Teare,
1125 Terminal Tower Bldg.,
Cleveland, Ohio.

Response to the amendment filed September 29, 1937.

Additional references made of record:

Brundage	1,976,833	Oct. 16, 1934	18/17
Iverson	1,989,364	Jan. 29, 1935	18/17

Applicant's argument with respect to the rejection of claim 1 on Maynard in view of Vinal is without merit, since it would neither involve invention nor impair the functioning of Maynard's machine to construct the upper head in the manner taught by Vinal. The constant fluid pressure in cylinder 20 of Vinal is the "means acting independently of said mechanism for pressing the mold members together". Claim 1 is therefore again rejected on Maynard in view of Vinal.

Claim 1 is further rejected as indefinite since "adapted and arranged" is an indefinite expression.

Claim 5 is rejected as incomplete since it does not recite how the mold section and frame are relatively separated and brought together.

Claim 6 is rejected as fully met by either Brundage or Iverson, 1,989,364.

Claims 12 to 14 are rejected as substantially met by Brundage who shows a motor-operated toggle press having two cam slots for guiding the movement of the movable mold member.

Claims 12 to 14 are further rejected as indefinite. The lower mold member is excluded from the combination, yet these claims define a structure of which the mold member is an essential element.

143 Claim 16 is rejected as fully met by Vinal.

Claim 16 is further rejected as indefinite since "adapted and arranged" is an indefinite expression.

Claim 7 is deemed allowable for the present.

B. H. ENKIN
REM *Examiner.*

144 Endorsed: Mail Division Mar 12 1938 U. S. Patent Office

Endorsed: U. S. Patent Office Filed Mar 14 1938 Division XV

Room No. 4897, Div. 15,
Application of Henry C. Bostwick,
Serial No. 145,241,
Filed: May 28th, 1937,
For: Toggle Press,
Last Office Action: January 14th, 1938.

Commissioner of Patents,
Washington, D. C.

Sir:—

In the matter of the above entitled application, please amend as follows:

Cancel Claim 1.

Claim 5, line 3, after "member" (second occurence) insert

—to close and open the press, said lower mold member operatively engaging the upper member and moving it relatively to toward the frame on closing of the press—.

[Matter enclosed between rules erased in copy.]

Claim 6, line 8, cancel "toggles" and substitute—toggle arms—.

Add the following claims:

17. A press having an upper mold member, a lower mold member, a support for the upper member on which the latter member is raisably mounted, mechanism for reciprocating and tilting the lower mold member, means operatively connecting said mechanism to the lower mold member for raising it into engagement with the upper member whereby to close the mold and lift the upper mold member off said support, and means adapted to act on one of the mold members independently of said mechanism for pressing the mold members together.

145 18. In a press of the type having an upper and a lower mold member, means including a frame for guiding and moving one of the members a considerable distance relative to the other member to open and close the press, and means guiding the other of the mold members for reciprocating movement independently of the aforesaid opening and closing movement and wherein an expansible fluid chamber is disposed adjacent the last mentioned mold member and adapted to effect such independent movement of the same in a direction toward the other mold member when the press is closed, the combination of controlling means for operating fluid of the chamber, which means is actuated consequent upon a predetermined independent movement of a mold member aforesaid, when the press is opened, to release fluid from the chamber.

19. In a press, the combination of a frame, upper and lower mold members movably mounted on the frame, means operatively connecting the lower mold member to the frame for moving the latter member toward and away from the upper member to close and open the press, an expansible fluid pressure chamber disposed above the upper mold member means for supplying fluid under pressure to sd chamber to exert clamping pressure between the mold members

after they are brought together, and means actuated by movement of the upper mold member on the frame in a direction toward the lower mold member for releasing sd fluid under pressure within the chamber.

[Matter enclosed between rules erased in copy.]

Remarks:

Claim 1 is presented herewith, in rewritten form, as Claim 17. It is now stated definitely that the upper mold member is raisably mounted on the support. This brings out a positive distinction from Maynard, whose upper mold member is fixed. The art does not show the combination of a raisably supported upper mold member, a tiltably and reciprocatingly supported lower mold member, and means independent of that which operates to reciprocate and tilt the lower mold member for pressing the two mold members together. Apparently, no prior inventor con- 146 ceived the idea of providing a lost motion support for an upper mold member in a mechanism wherein the lower mold member has a tilting, as well as a reciprocating motion. The patentee Vinal does not indicate how his own construction or that of Maynard could be modified to meet Claim 17.

Claim 5, now brings out that the relative separation of the upper mold member and the frame is accomplished by the lower mold member.

New Claims 18 and 19 have been added, based on the pressure release control of Claim 5 which appears to be absent from the art. Claim 19 recites specifically that the operating connection for opening and closing the press is between the lower mold member and the frame.

Claim 6 has been amended to recite that the stripper pin is actuated by one of the toggle arms. This is a simpler arrangement than shown by either Iverson or Brundage. In Brundage an arm separate from the toggle links is provided for operating the pin, as described in lines 120 to 132 on page 2 of the specification. In Iverson the stripper pin is apparently operated only by a spring.

Reconsideration is requested of the rejection of Claims 12 to 14 on the ground that these are indefinite. Applicant has complied with the Examiner's previously made requirements that the claims be limited specifically to the toggle mechanism. It is necessary, however, to refer to the mold members in order to bring out the utility for the toggle arrangement recited. The manner in which applicant does this is believed in keeping with the decisions following Ex Parte Jepson, 243 O. G. 527, which approves elimination of old matter from a combination while nevertheless reciting such matter. The claims are believed to make it perfectly clear what is new in applicant's arrangement.

147 This is all that is believed rightfully required of an applicant in defining his invention.

Reconsideration of Claims 12 to 14, as rejected on Brundage is requested. Brundage does not show cam slots which operatively engage intermediate pivot members for toggles as brought out by Claim 12. The cam follower on the lower mold member of Brundage is unrelated to any of the toggle connections. The reference lacks the "member having a cam slot . . . for connecting the intermediate (toggle) pivots together",—indicating applicant's device 71-72 as brought out in Claim 13, and the relationship of the frame slot to a pivotal toggle connection (same claim). Both features just mentioned (absent from Brundage) are described by Claim 14.

Reconsideration is requested of Claim 16. No controlling connection between either mold and the expansible fluid pressure means is found in the Vinal patent. Apparently, the line 21 is controlled by hand valves. In any event there is no automatic means which admits fluid to the cylinders upon a short upward movement of the upper mold member.

Respectfully submitted,

HENRY C. BOSTWICK,
By BATES, GOLRICK & TEARE
Attorneys.

Cleveland, Ohio.
GMS:UMG,
March , 1938.

148 Endorsed: Mailed Jul 23 1938

Div. 15 Room 4897 REM/w Paper No. 7

Department of Commerce
United States Patent Office
Washington

Applicant: Henry C. Bostwick
Ser. No. 145,241
Filed May 28, 1937
For Toggle Press

Bates, Golrick & Teare
1125 Terminal Tower Bldg.
Cleveland, Ohio.

In response to the amendment filed March 12, 1938.

Claims 5, 16 and 19 are rejected as inaccurate and incomplete. The fluid pressure chamber does not "exert clamping pressure between the mold members," but it is the fluid under pressure in the chamber which does so. To remedy this defect, "adapted" should be replaced by *means for supplying fluid under pressure to said chamber* in the three claims, and in claim 19, line 9, *said* should be inserted before and *under* should be inserted after "fluid". Since the upper mold member is mounted *on* the frame, it is inaccurate to speak of "the relative separation of the upper mold member and the frame". It would be more proper to recite *means actuated by movement of the upper mold member relative to the frame*. For the same reason "toward", in the amendment to claim 5, line 3, after "member", second occurrence, should be changed to *to*.

Claim 6 is again rejected on Iverson, 1989, 364. In his argument, applicant has apparently overlooked page 3, lines 16 to 42 of the reference, which states that, in addition to spring 125, abutment member 120 mounted on toggle link 61, is also effective to cause projection of the stripping ring. For the purposes of this claim, members 117, 118 and 119 of Iverson may be construed as "the stem".

Claims 12 to 14 are rejected as indefinite, since the mold members or heads are not positively recited as parts of the combination. They are recited only indirectly and 149 have no antecedent. Since they are essential members of the combination, they must be positively recited as such. The toggles and pivots should be positively recited in claim 12 for the same reason. In line 3 of claim 12, "suspended" should be replaced by *supported.* In claim 12, line 10 and claim 14, line 11, the use of "stud" is objected to since it has no basis in the specification. If applicant refers here to roller 74, he should substitute *roller* for "stud".

Claim 16 is further rejected as broad enough to be met by Vinal. When Vinal's ram is forced against the upper die, the resiliently mounted plunger 22 will be temporarily raised, but the constant fluid pressure above it will be then effective to force the upper die down against the work.

Claim 17 is rejected on Maynard in view of Vinal for the reasons given in the rejection of claim 1 in the last office action.

Claim 18 is rejected as indefinite in that it recites a combination which consists of a single means. "One of the mold members", line 4, should evidently be changed to *the other mold member.* The use of "independently", line 5, is inaccurate since the upper mold member moves up on bolts 56 under the influence of the lower mold member.

Claim 7 is allowable.

ALDEN E. IMUS,
REM *Acting Examiner.*

150 Endorsed: Mail Division Jan 21 1939 U. S. Patent Office

Endorsed: U. S. Patent Office Jan 23 1939 Division 15

Div 15—Room 4897
Applicant Henry C. Bostwick
Serial No. 145241
Filed May 28 1937
For Toggle Press.
Last office action July 23 1938

Commissioner of Patents,
Washington, D. C.

Sir:

In the matter of the above entitled application, please amend as follows:—

Page 7 line 21 add:—

"As shown in Fig. 2 the upper portion of the slot 75 is inclined to the axis of the molds, and as a result, the first movement of the tilting and shifting action helps to break the connection between the tire and the mold."

[Matter enclosed between rules erased in copy.]

Cancel claims 5, 12 to 14, 18 and 19.

Claim 6, line 4, after "section" insert—

out of the line of engagement with the upper mold, so that the space above the lower mold is unobstructed—.

[Matter enclosed between rules erased in copy.]

Line 8, after "the" (second occurrence insert "tilting." Same line, erase—opening—. Last line, before "the" (first occurrence) insert—the lower section—. Same line, after "press" insert a comma (,).

Claim 16, line 6, erase "adapted and arranged" and substitute—means for supplying fluid under pressure to said chamber—. Line 8, before "and" insert—means for releasing the pressure in the chamber during the opening of the press—.

151 Claim 17, last line, change the period, to a comma(,) and add—

said last named means being actuated by the upward movement of the lower member into engagement with the upper member.—

[Matter enclosed between rules erased in copy.]

Add the following claims:—

20. In a press, the combination of a frame, an upper mold member movably carried thereby, a lower mold member, means for moving the lower member with respect to the upper member to close and open the press, said lower mold member operatively engaging the upper member and moving it relatively to the frame on the closing of the press, an expansible fluid pressure chamber disposed above the upper mold member, means for supplying fluid under pressure to said chamber to exert clamping pressure between

the mold members, and means actuated by movement of the upper mold member relative to the frame for releasing the fluid pressure within the chamber whenever the press is opened.

21.

In a press having a frame, the combination of a pair of mold members and a pair of toggles for moving one of the mold members with respect to the other

[Matter enclosed between rules erased in copy.]

member, said toggles each having an intermediate pivot thereon, an electric motor supported by the frame, a screw and nut couple operatively connecting the motor to the intermediate pivot of one of the toggles, guiding means connecting the intermediate pivots of the toggles and including a member having a cam slot therein for receiving an intermediate pivot of one of the toggles, and additional guiding means for the movable mold member, said guiding means including a cam slot on the frame, and a roller carried by the mold member and movable in said slot.

152 22. In a press, the combination of a frame, an upper press head carried by the frame, and a lower press head movable with respect to the upper head, a pair of toggle members pivotally connected to the lower head and to the frame respectively, and each having an intermediate pivot, a screw shaft pivotally connected to one of the intermediate pivots, a motor pivotally supported on the frame, gearing operatively connecting the motor to the screw shaft, a system of linkage including a member connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle for connecting the intermediate pivots together so as to cause movement of them in timed relationship to the movement of the lower head, and guiding means for the lower head, said means including a cam slot in the frame and a member connected to the lower head and coacting with the cam slot in the frame to impart a shifting and tilting movement of the head during the opening and closing operation of the press.

153 23. In a press, the combination of a frame, an upper press head and a lower press head mounted for

reciprocal and tilting movement within the frame, a pair of toggle devices operatively connecting the frame to the lower head, each of said toggles having an intermediate pivot thereon, a motor support having trunions journalled in the frame, a screw shaft journalled in the support, gearing operatively connecting the motor to the screw shaft, one end of the screw shaft being operatively connected to the intermediate pair of pivots of one of said toggle devices, guiding means on the frame for the lower head, said means including a roller on the head and a cam slot on the frame, the upper portion of which slot is at an oblique angle to the plane of separation of the mold members, a system of linkage interconnecting the intermediate pivots of the toggles and including a link that is pivotally connected to the frame and also including a member connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle, the cam slot in the last-named member being adapted to produce movement of the intermediate toggle pivots in unison, during a part of the movement of the lower head, and to produce movement with relation to each other during another portion of the movement of the lower head, consequent upon the opening and closing operation of the press.

24. In a press of the type having an upper and a lower mold member, means including a frame for guiding and moving one of the members a considerable distance relative to the other member to open and close the press, means for guiding the other mold member for reciprocating movement, there being an expansible fluid chamber disposed adjacent the last-mentioned mold member and adapted to effect an independent movement of the same in a direction toward the other mold member when the press is closed, controlling means for operating fluid in the chamber, said last named means being actuated consequent upon a predetermined independent movement of the mold member aforesaid, whereby when the press is opened, the pressure is released from the chamber.

154 25. In a press, the combination of a frame, upper and lower members movably mounted on the frame, means operatively connecting the lower mold member to the frame for moving the latter member toward and away

from the upper member to close and open the press, an expansible fluid pressure chamber disposed above the upper mold member, means for supplying fluid under pressure to said chamber to exert clamping pressure between the mold members after they are brought together, and means actuated by movement of the upper mold member on the frame in a direction toward the lower mold member for releasing said fluid under pressure within the chamber.

26. In a press, the combination of a frame, a pair of mold members toggles for moving one of the mold members with respect to the other, means for operating the toggles, guiding means in the frame for the toggles, said means including a cam slot in the frame, and a coacting roller on one of the toggles, said cam slot having the upper portion thereof inclined to the axis of the mold whereby one of the mold sections is shifted with reference to the other during that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness.

Remarks:

Claims 5, 12 to 14, 18 and 19 have been rewritten to incorporate the formal changes suggested by the Examiner, and these claims are now rewritten as numbers 20 to 25, inclusive, for the purpose of clarity. Since no references have been applied to any of the above numbered claims, they are now deemed to have been placed in condition for allowance.

155 Claim 6 has been amended, in view of the reference to Iverson No. 1,989,364, to include the feature that the lower section of the press is tilted out of the line of engagement with the upper mold so that the space above the lower mold is unobstructed. Moreover, the claim has been further amended to set forth that the abutment carried by one of the toggle arms engages the stem of the stripper ring during the tilting movement of the lower section of the mold. It is apparent that the lower mold section in Iverson is stationary and therefore cannot be tilted out of the line of obstruction with the upper mold section so as to facilitate removal of the tire from the mold. Claim

6 is not only distinguishable for this reason but for the additional reason that the claim now recites that the stripper ring is actuated by the tilting of the mold, rather than the mere opening of the mold as taught by Iverson. The simultaneous operation of the tilting and stripping mechanism presents a more novel arrangement in which the tire can be easily removed after it has been ejected from the mold in the tilted position.

Claim 16 has been amended to correct the informalities noted by the Examiner. This claim has further been amended to distinguish over Vinal. Vinal shows an opening 21 for a continuous supply of compressed air, which his specification states "is merely a resisting pressure against that exerted by the mechanism below." (Page 2). It is not rendered effective by the movement of the mold. Claim 16 has also been amended to include means for releasing the pressure in the chamber during the opening of the press. In applicant's device, the pressure in the chamber 51 is released by the valve 60 when the press is opened.

156 Claim 17 has been amended in view of the references to Maynard and Vinal. This claim now recites that the means for pressing the mold members together are actuated by the upward movement of the lower member into engagement with the upper member. This feature is accomplished by the closing of the valve 60 in the applicant's device, when the lower mold member is brought into engagement with the upper mold member. Vinal merely shows a plunger and a constant air supply but does not disclose means for regulating the air supply consequent upon the movement of the mold member, as now recited in the claim.

Claim 26 is specific to the position of the cam slot in the frame with reference to the axis of the mold, as is shown in Fig. 2 as a result of which a slight lateral motion is imparted to the tire which assists in breaking the connection between the tire and mold in the initial opening of the press. This construction appears to be novel over all of the references of record, and therefore, the applicant is believed to be entitled to protection thereon.

It is thought that this amendment should place the application in condition for allowance and favorable action on the claims is respectfully requested.

Respectfully submitted,

HENRY C. BOSTWICK,

By: BATES GOLRICK & TEARE
Attorneys

Cleveland, O.
ART:KM
Jan 20 1939

157 Endorsed: Mailed May 20 1939

Div. 15 Room 4897 REM:TIS Paper No. 9

Department of Commerce
United States Patent Office
Washington

Applicant: Henry C. Bostwick
Ser. No. 145,241
Filed May 28, 1937
For Toggle Press

Bates, Golrick & Teare
1125 Terminal Tower Bldg.
Cleveland, Ohio.

Responsive to amendment filed Jan. 21, 1939.

Applicant does not disclose how the admission of fluid pressure to chamber 51 is controlled.

Claim 6 is rejected on Brundage who shows an upper mold section carried by a frame and toggle means for moving a lower mold section into engagement with the upper section. In the open condition of the press the space above the lower mold is substantially unobstructed. The degree of obstruction appears to depend on the length of the toggle levers so that if it were desired to decrease the obstruction in the case of the reference, there would be no invention in lengthening the toggle links. So far as the stripping means is concerned there would be no invention in incorporating members 118, 119, 120 etc. of Iverson, 1,989,364, into the Brundage device since in that case the abutment (120 of Iverson) carried on one of the toggle arms would engage the stem during the tilting movement of the lower mold section, for projecting the stripper ring. *Of* should obviously be inserted after "section" last line.

Claim 16 is rejected as indefinite and inaccurate as regards "means", line 8. Since applicant has not stated how or when pressure fluid is introduced from conduit 52 into chamber 51, it is inaccurate and confusing to say that the seating of valve 60 ("means" of line 8) renders pressure in the chamber effective since the valve 60 does not control the admission of fluid into the chamber. There is no antecedent for "pressure" last line. One way 158 of curing this claim of its defects would be to replace "pressure in the chamber effective", last line, by *said releasing means ineffective.*

Claim 17 is rejected as inaccurate in regard to its last amendment for the reasons stated in the rejection of claim 16.

Claim 21 is rejected as being indefinite and functional. Applicant should cancel "having a frame" line 1 and insert after "of", first occurrence, line 2, *a frame* and cancel "for" line 9. The claim is functional because applicant does not recite the connections of the toggles with the lower mold section and the frame. In re Spitzglass et al, 496 O. G. 856.

Claim 22 is rejected on Brundage who in addition to the features pointed out in the rejection of claim 6 discloses a screw shaft pivotally connected to a toggle knuckle. Whether the movement of the lower mold section is modified by the engagement of roller 39 in the cam slot in the frame as is done by Brundage or whether such a roller is mounted at the pivotal point between an upper toggle link and the lower mold section appears to involve only a matter of choice. Applicant has not stated how any member of the combination recited in this claim coacts with the "cam slot" line 9. The word "coextensive" line 13, is indefinite and inaccurate. While roller 74 is mounted on the "pivotal connection", it does not extend the full length of said connection which is what "coextensive" would imply.

Claim 23 is rejected on Brundage who shows all the elements positively recited in the claim except the "cam slot", line 15, which is not positively tied up with the other elements of the combination. The last six lines amount to a statement of function which is not supported by a recita-

tion of sufficient structure. Hence the functional statement cannot be depended upon to distinguish this
159 claim from the reference in a patentable sense. In re Spitzglass et al supra.

Claim 24 is rejected as indefinite and functional since it recites a single means broadly enough to cover all ways of accomplishing the desired result. See In re Gardner, 1909 C. D. 306, 140 O. G. 258; 32 App. D. C. 249; and In re Spitzglass supra.

Claim 25 is allowable except for "and", line 6, which should be canceled as being superfluous. "Member," same line, should, of course, be followed by a comma.

Claim 26 is rejected on Brundage since it would not require invention to mount a roller on the pivotal connection between the front upper toggle link and the lower mold section and to have the roller engage a cam slot in the frame. This would require only a slight change in design. The middle portion of Brundage's cam slot is inclined to the axis of the mold. The last "whereby" clause is functional since the cam slot is not so recited as to predicate that "tilting movement" assists in breaking the connection between the tire and the mold.

Claims 7 and 20 are allowed.

This rejection is made FINAL.

B. H. ENKIN
Examiner.

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160 U. S. Patent Office Division 15 Nov 10 1939
Application Division Patent Office Nov 9 '39

Div. 15, Room 4897,
Applicant: Henry C. Bostwick,
Serial No. 145,241,
Filed: May 28, 1937,
For: Toggle Press.
Last Office Action: May 20, 1939
Commissioner of Patents,
Washington, D. C.

Sir:

In the matter of the above entitled application, please amend as follows:

Page 5, line 22, after the final parenthesis), insert—controlled by an external valve, not shown.—

Page 7, line 19, after the word "gradually" insert—and shifts laterally (toward the left in Fig. 2) —

In the insert contained in the amendment C, filed January 21, 1939, and directed for page 7, line 21, in the third line of that insert, after the word "tilting" insert—and shifting—.

Erase claim 6.

Claim 16, last line, for the words "pressure in the chamber effective" substitute—said releasing means ineffective—.

Claim 17, line 7, for the words "acting" substitute—adapted to act—. Erase line 9, and the matter added thereto by amendment, and insert in place thereof—

members together, a device for rendering the last mentioned means effective and ineffective, said device being actuated by the upward movement of the lower member into engagement with the upper member to render the last mentioned means effective.—.

[Matter enclosed between rules erased in copy.]

Claim 21, erase the first three lines, and insert in place thereof the following—

In a press the combination of a frame, a pair of mold
161 members and a pair of toggles connected with one
of the mold members for moving it with respect to
the other—.

[Matter enclosed between rules erased in copy.]

Same claim, line 9, erase the word "for".

Claim 22, line 9, for the words "having a cam slot therein" substitute

—connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle—.

[Matter enclosed between rules erased in copy.]

Same claim, line 13, erase "that is co—". Erase line 14; line 15, for "toggles and" substitute—connected to—. Same line, erase "for" and substitute—and—. Line 16, for the word "reciprocating" substitute—shifting—.

Claim 23, line 12, after the comma (,) following the word "frame" insert

—the upper portion of which slot is at an oblique angle to the plane of separation of the mold members,—.

[Matter enclosed between rules erased in copy.]

Lines 15 and 16, for the words "having a cam slot therein" substitute

—connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle,—.

[Matter enclosed between rules erased in copy.]

Claim 24, line 10, for the words "being actuated" substitute—comprising a conduit communicating with the chamber and a releasing valve for allowing escape of pressure fluid from the chamber, said releasing valve being actuated in an opening direction—. Line 12, before the word "when" insert—whereby—. Same line, for the words "to release fluid" substitute—the pressure fluid is released—.

Claim 25, line 6, place a comma (,) after the word member. Same line, erase the word "and".

Claim 26, line 6, for the word "a" substitute—the upper—. Line 7, for the word "tilted" substitute—shifted—. Line 8, erase the words "the opening operation, and"—. Erase lines 9 and 10 and insert in place thereof—that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness.—

162 *Add the Following Claim:*

27. A method of stripping a pneumatic non-skid tire from a two-part vulcanizing mold after vulcanization, comprising shifting the mold parts obliquely relative to each other while a tire in said mold is in the path of oblique movement of said mold parts, then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface.

Remarks: The Examiner is requested to waive the final rejection and enter the accompanying amendment for two reasons:

First, this amendment adds to the case, as claim 27, a count of an interference No. 77,589, between James W. Brundage, Cato Iverson, Otto J. Kuhlke and Wm. J. Carter, and applicant requests that he be made a party to that interference, or to another interference involving those parties and that claim.

Second, this amendment cancels one rejected claim and in all of the other rejected claims incorporates either the matter suggested by the Examiner in the last Office Action as curing defects in the claims, or it incorporates distinctions over the references which the Examiner held were not brought out in the claims as formerly presented.

Taking up in order the objections and rejections in the last Office Action, we note the following:

The insertion in line 22 of page 5 is believed to cure the objection as to controlled admission of fluid pressure to the chamber 51.

The rejected claim 6 is cancelled by this amendment.

Claim 16 is corrected by following the Examiner's suggested change.

163 Claim 17 has been amended along the lines suggested by the Office Action; that is to say, it now includes the pressure releasing device which may be effective or ineffective, the upward movement of the lower mold member rendering it ineffective as a release.

Claim 21 has been amended, as suggested in the Office Action to cure the indefiniteness, while the objection of functionality is believed to be overcome by specifying the structure of the toggle connection rather than the purpose thereof.

Claim 22 was rejected on Brundage, this rejection being coupled with the statement that applicant had not stated how any member of the recited combination coats with the cam slot in the connecting member. This has now been incorporated in the claim and thus brings in positively an element not suggested in the Brundage patent. The word "co-extensive" has been eliminated.

Claim 23 was rejected on Brundage, with the comment as to the cam slot not being positively tied up with other elements of the combination. The claim has now been amended to positively include the member having this slot as an element of the combination. The claim thus defines a combination not disclosed in the Brundage patent.

Claim 24 was rejected as indefinite and functional. This has been amended along the lines suggested to us by the Examiner's action regarding claim 16, and now includes a conduit for conducting pressure fluid to the chamber and a releasing valve for allowing escape of the pressure fluid, and does not rely on a functional statement.

Claim 25 has been amended as suggested by the Examiner, the Office Action stating that such amendment would render it allowable.

164 Claim 26 has been amended to specify distinctly that the *upper* portion of the cam slot is inclined to the axis of the mold, whereby the lower mold is shifted with reference to the upper mold immediately upon the separation and before movement has become sufficient to free the tire from either mold member. This shifting results in breaking the tire loose from the mold, which does not happen when the molds are pulled apart in the direction of their axes. Now the offset in the Brundage slot 40 is so far down that the tire may have entirely cleared one of the mold members and be retained entirely in the other before the incline in the slot comes into action. Accordingly, such incline does not have the effect of applicant's incline at the upper end of the slot, which does cause an action on the tire to detach it from the mold.

For the reasons above set out, applicant requests the allowance of the application as now presented, with the exception of claim 27, and requests that claim 27 be put in interference.

As heretofore stated, claim 27 is copied from an interference count. This applies to applicant's structure as follows:

"A method of stripping a pneumatic non-skid tire from a two-part vulcanizing mold after vulcanization"	This action results in applicant's machine, as the lower mold separates from the upper mold.
"comprising shifting the mold parts obliquely relative to each other while the tire in said mold is in the path of oblique movement of said mold parts"	Such shifting results from the toggles shown in applicant's Fig. 2, which, when they are buckled cause the lower mold to come down and at the same time shift toward the left, due to the controlling roll 74 occupying a slot 75 which inclines away

	from the normal to the plane of separation of the molds; that is to say, toward 165 the axes of the molds. This action due to the incline being at the extreme top of the slot occurs immediately after the separation of the molds and while the tire in the molds is in the path of such oblique movement.
"then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface.	The separation of the mold parts, carrying the lower mold toward the left before the parts have separated half the thickness of the tire, necessitates some of the tire being in the lower mold section and some in the upper mold section, and hence the left hand portion (in Fig. 2) of the tire bears against the upper member section, and the left hand portion against the lower mold section, resulting in the tire being compressed diametrically between these diagonally opposite areas on the tread surface of the tire.

Respectfully submitted,

HENRY C. BOSTWICK,

By BATES. GOLRICK & TEARE,
Attorneys

Cleveland, Ohio,
Nov. 6, 1939.
AHB.ML

166 Endorsed: Nov 16 1939

Div. 15 Room 4897 REM:EMT Paper No. 11

Department of Commerce
United States Patent Office
Washington

Applicant: Henry C. Bostwick
Ser. No. 145,241
Filed May 28, 1937
For Toggle Press

Bates, Golrick & Teare
1125 Terminal Tower Bldg.
Cleveland, Ohio

Since applicant's amendment of November 9, 1939, does not place the case in condition for allowance and does not constitute an appeal from the final rejection, it has not been entered. If entered, the claims would be subject to the following action.

In claim 16, "having", line 1, should be canceled. With this change, claim 16 will be allowable.

Claim 17 will be allowed upon the substitution of *and* for "or" in line 2 of the amendment which is to replace line 9 of the claim.

Claim 21 will be rendered allowable upon revising the latter half of line 2 to read *a pair of toggles connected to the frame and to one of the mold members* etc.

Claims 22 and 23 are rejectable as containing new matter, since there is no basis in the original disclosure for "shifting", line 16, claim 22, and "oblique angle", line 12, claim 23. There is no statement in the specification regarding the relative inclination of cam slot 75 and since patent drawings are not made to scale, a slight apparent inclination between slot 75 and the mold axis at right angles to the plane of separation of the mold members is not sufficient foundation on which applicant may claim that the upper portion of the slot is "at an oblique angle . . . members". Moreover, there is no statement in the specification about a "shifting" movement. In both claims, "having a frame", line 1, should be canceled, and *a frame* should be inserted after "of", lines 2 and 1 respectively.

167 Claim 24 is rejectable as being indefinite, since it does not state what the "controlling means" is com-

bined with. That is, the word "combination" confuses the meaning of the claim. Moreover, the upper mold member is apparently an essential element of the structure recited in this claim and this member should, therefore, be positively recited.

Claim 26 is rejectable as being indefinite, inaccurate and containing new matter. It is indefinite because "mold members", line 3, lacks an antecedent and because the frame, an essential element of the combination, has not been positively recited. To overcome this defect, "having a frame", line 1, should be canceled, and *a frame* should be inserted after "of", line 2. It is inaccurate because member 74 is referred to as a *roller* rather than as "pin", line 5, in page 7, line 16 of the specification. It contains new matter because of the expressions "shifting" and "a greater distance than half the tire thickness" which have no foundation in the original disclosure.

Entry of proposed claim 27 is denied because it relates to subject matter not contained in the original disclosure and is therefore new matter. The inclination of slot 75 to the axis of the mold is so slight that it is doubted whether the mere coaction of roller 74 with slot 75 would effect stripping of the tire from the mold without the aid of the stripping ring 76. Moreover, there is nothing in the original disclosure which indicated that the orientation of slot 75 caused the tire to be stripped from the mold or that applicant intended to produce his stripping action by this particular method. Applicant appears to have provided an entirely different mechanism, members 76 to 79, for stripping. Moreover, the method of stripping covered by this claim is neither covered by the purview of the invention nor was
there an original claim presented to this method, and
168 no oath under Rule 48 filed to indicate that this
method was part of the original invention.

Claims 7, 20, and 25 appear allowable.

The six-month period for response runs from May 20, 1939, the date of the final rejection.

B HENKIN
Examiner.

169 Endorsed Mail Division Nov 20 1939 U. S. Patent Office

Endorsed: Board of Appeals Nov 21 1939 U. S. Patent Office

In the United States Patent Office

Nov - 20 - 39 97060D—Check—15.00

In re application of Henry C. Bostwick
Serial No. 145,241
Filed May 28, 1937
Toggle Press

Appeal to Board-of-Appeals

Hon. Commissioner of Patents
Sir:

I hereby appeal to the Board of Appeals from the decision of the Primary Examiner in the above-identified application, wherein the claims were a second time and finally rejected. The following are the grounds on which the appeal is taken:

1. The Examiner erred in rejecting claim 16 as indefinite and inaccurate.
2. The Examiner erred in rejecting claim 17 as indefinite and inaccurate.
3. The Examiner erred in rejecting claim 21 as indefinite and functional.
4. The Examiner erred in rejecting claim 22 on Brundage and holding that the changes involve merely a matter of choice.
5. The Examiner erred in rejecting claim 23 on Brundage.
6. The Examiner erred in rejecting claim 24 as indefinite and functional.
7. The Examiner erred in rejecting claim 26 as not involving invention over the patent to Brundage and as involving a slight change in design.

170 8. The Examiner erred in rejecting the claims on the references and for the reasons of record.

An oral hearing is requested and the appeal fee of $15.00 is filed herewith.

An amendment is filed simultaneously herewith cancelling rejected claim 6 and correcting many of the claims in accordance with the Examiner's advisory action dated Nov. 16, 1939 so as to render the same allowable, particularly claims 16, 17, 21 and 24. A request is simultaneously filed to enter said amendment for purposes of allowance on appeal as to claims 22, 23, 26 and 27 which the Examiner has rejected as being directed to new matter, so that the latter claims may form part of this appeal.

Respectfully submitted,

HENRY C. BOSTWICK

By BATES, GOLRICK & TEARE,
Attorneys

Wash. D. C.
Nov. 20, 1939
DAG:SA

171 Endorsed: Mail Division Nov 20 1939 U. S. Patent Office

In the United States Patent Office

Div. 15—Room 4897

In re application of Henry C. Bostwick
Serial No. 145,241
Filed May 28, 1937
Toggle Press

Hon. Commissioner of Patents
Sir:

It is requested that the attached amendment be entered. This amendment cancels claim 6 and places claims 16, 17, 21 and 24 in condition for allowance in accordance with the Examiner's advisory action dated Nov. 16, 1939.

Claims 22, 23 and 26 having been amended to overcome the objection of indefiniteness and inaccuracies pointed out in said advisory action, the sole question involved is whether these claims as well as proposed claim 27 which is a count of Intf. 77,589, are directed to new matter. As to claims 22, 23 26 and 27, the Examiner is asked to enter the amendment for purposes of appeal if it is believed that the rejection on the ground of new matter should be adhered to. No new search is involved in view of the fact that claim 27 has been held allowable in the interference and claims 22 and 23 contain the same allowable subject-matter.

The oath under Rule 48 is filed herewith.

Applicant requests the Examiner to take this case up for action promptly so that applicant can be advised whether the claims rejected on the ground of new matter can be included in the present appeal.

Respectfully submitted,

BATES, TEARE & McBEAN
Attorneys for Applicant

Wash., D. C.
Nov. 20, 1939
DAG:SA

172 Endorsed: Mail Division Nov 20 1939 U. S. Patent Office

Div. 15, Room 4897,
Applicant: Henry C. Bostwick,
Serial No. 145,241,
Filed: May 28, 1937,
For: Toggle Press,
Last Office Action, November 16, 1939.

Commissioner of Patents,
Washington, D. C.

Sir:

In the matter of the above entitled application, please amend as follows:

Page 5, line 22, after the final parenthesis), insert—controlled by an external valve, not shown.—.

Page 7, line 19, after the word "gradually" insert—and shifts laterally (toward the left in Fig. 3)—.

In the insert contained in the amendment C, filed January 21, 1939, and directed for page 7, line 21, in the third line of that insert, after the word "tilting" insert—and shifting—. At the end of the insert, add—Inasmuch as the upper part of the cam slot is inclined to the axis of the mold members, it is necesarily disposed at an oblique angle to the plane of separation of the mold members, because, as shown in Fig. 2, the plane of separation of the mold members is normal to the axis of the members. As a result of this construction, one of the mold members is shifted with reference to the other during that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness.—

Erase Claim 6.

Claim 16, line 1, cancel "having". Last line, for the words "pressure in the chamber effective" substitute—said releasing means ineffective—.

Claim 17, line 7, for the words "acting" substitute—adapted to act—. Erase line 9, and the matter added thereto by amendment, and insert in place thereof—

173 members together, a device for rendering the last mentioned means effective and ineffective, said device being actuated by the upward movement of the lower member into engagement with the upper member to render the last mentioned means effective.—

[Matter enclosed between rules erased in copy.]

Claim 21, erase the first three lines, and insert in place thereof the following—

In a press the combination of a frame, a pair of mold members and a pair of toggles connected to the frame and to one of the mold members for moving it with respect to the other—.

[Matter enclosed between rules erased in copy.]

Same claim, line 9, erase the word "for".

Claim 22, line 1, cancel "having a frame". Line 2, after "of" insert—a frame,—. Line 9, for the words "having a cam slot therein" substitute—

connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle—.

[Matter enclosed between rules erased in copy.]

Same claim, line 13, erase "that is co-". Erase line 14; line 15, for "toggles and" substitute—connected to—. Same line, erase "for" and substitute—and—. Line 16, for the word "reciprocating" substitute—shifting—.

Claim 23, line 1, cancel "having a frame". Same line, after "of" insert—a frame,—. Line 12, after the comma (,) following the word "frame" insert—

the upper portion of which slot is at an oblique angle to the plane of separation of the mold members,—.

[Matter enclosed between rules erased in copy.]

Lines 15 and 16, for the words "having a cam slot therein" substitute—

connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle,—.

[Matter enclosed between rules erased in copy.]

Claim 24, line 9, erase "the combination of". Line 10, for the words "being actuated" substitute—

comprising a conduit communicating with the chamber and a releasing valve for allowing escape of pressure fluid from the chamber, said releasing valve being actuated in an opening direction—.

[Matter enclosed between rules erased in copy.]

Line 12, before the word "when" insert—whereby. Same line, for the words "to release fluid" substitute—the pressure fluid is released—.

174 Claim 25, line 6, place a comma (,) after the word member. Same line, erase the word "and".

Claim 26, line 1, cancel "having a frame". Line 2, after "of" insert—a frame,—. Same line, erase "section" and substitute—members—. Line 5, change "pin" to roller. Line 6, for the word "a" substitute—the upper—. Line 7, for the word "tilted" substitute—shifted—. Line 8, erase the words "the opening operation, and"—. Erase lines 9 and 10 and insert in place thereof—

that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness.

[Matter enclosed between rules erased in copy.]

Add the following Claim:

27. A method of stripping a pneumatic non-skid tire from a two-part vulcanizing mold after vulcanization, comprising shifting the mold parts obliquely relative to each other while a tire in said mold is in the path of oblique movement of said mold parts, then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface.

[Matter enclosed between rules erased in copy.]

Remarks:

The Examiner is requested to waive the final rejection and enter the accompanying amendment for two reasons:

First, this amendment adds to the case, as claim 27, a count of an interference No. 77,589, between James W. Brundage, Cato Iverson, Otto J. Kuhlke and Wm. J. Carter, and applicant requests that he be made a party to that interference, or to another interference involving those parties and that claim.

Second, this amendment cancels one rejected claim and in all of the other rejected claims incorporates either the matter suggested by the Examiner in the last Office Action
as curing defects in the claims, or it incorporates dis-
175 tinctions over the references which the Examiner
held were not brought out in the claims as formerly
presented.

Taking up in order the objections and rejections in the last Office Action, we note the following:

The insertion in line 22 of page 5 is believed to cure the objections as to controlled admission of fluid pressure to the chamber 51.

The rejected claim 6 is cancelled by this amendment.

Claim 16 is corrected by following the Examiner's suggested change.

Claim 17 has been amended along the lines suggested by the Office Action; that is to say, it now includes the pressure releasing device which may be effective or ineffective, the upward movement of the lower mold member rendering it ineffective as a release.

Claim 21 has been amended, as suggested in the Office Action to cure the indefiniteness, while the objection of functionality is believed to be overcome by specifying the structure of the toggle connection rather than the purpose thereof.

Claim 22 was rejected on Brundage, this rejection being coupled with the statement that applicant had not stated how any member of the recited combination coacts with the cam slot in the connecting member. This has now been incorporated in the claim and thus brings in positively an element not suggested in the Brundage patent. The word "co-extensive" has been eliminated.

Claim 23 was rejected on Brundage, with the comment as to the cam slot not being positively tied up with other elements of the combination. The claim has now been amended
to positively include the member having this slot as
176 an element of the combination. The claim thus defines a combination not disclosed in the Brundage patent.

Claim 24 was rejected as indefinite and functional. This has been amended along the lines suggested to us by the Examiner's action regarding claim 16, and now includes a conduit for conducting pressure fluid to the chamber and a releasing valve for allowing escape of the pressure fluid, and does not rely on a functional statement. The elimination "of the combination of" from the claim will correct the objection to indefiniteness as to the "controlling means".

Claim 25 has been amended as suggested by the Examiner, the Office Action stating that such amendment would render it allowable.

The specification has been amended to include the description of the press operation, as stated in amended claims 22, 23 and 26, in conformity with the drawings. Additionally, an affidavit under Rule 48 is being filed herewith.

Claim 26 has been amended to specify distinctly that the *upper* portion of the cam slot is inclined to the axis of the mold, whereby the lower mold is shifted with reference to the upper mold immediately upon the separation and before movement has become sufficient to free the tire from either mold member. This shifting results in breaking the tire loose from the mold, which does not happen when the molds are pulled apart in the direction of their axes. Now the offset in the Brundage slot 40 is so far down that the tire may have entirely cleared one of the mold members and be retained entirely in the other before the incline in the slot comes into action. Accordingly, such incline does not have the effect of applicant's incline at the upper end of the slot, which does cause an action on the tire to detach it from the mold.

177 For the reasons above set out, applicant requests the allowance of the application as now presented, with the exception of claim 27, and requests that claim 27 be put in interference.

As heretofore stated, claim 27 is copied from an interference count. This applies to applicant's structure as follows:

"A method of stripping a pneumatic non-skid tire from a two-part vulcanizing mold after vulcanization"	This action results in applicant's machine, as the lower mold separates from the upper mold.
"comprising shifting the mold parts obliquely relative to each other while the tire in said mold is in the path of oblique movement of said mold parts"	Such shifting results from the toggles shown in applicant's Fig. 2, which, when they are buckled cause the lower mold to come down and at the same time shift toward the left due to the controlling roll 74 occupying a slot 75 which inclines away from the normal to the plane

	of separation of the molds; that is to say, toward the axes of the molds. This action due to the incline being at the extreme top of the slot occurs immediately after the separation of the molds and while the tire in the molds is in the path of such oblique movement.
"then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface."	The separation of the mold parts, carrying the lower mold toward the left before the parts have separated half the thickness of the tire, necessitates some of the tire being in the lower mold section and some in the upper mold section, and hence the left hand portion (in Fig. 2) of the tire bears against the upper member section, and the left hand portion against the lower mold section, resulting in the tire being compressed diametrically between these diagonally opposite areas on the tread surface of the tire.

Respectfully submitted,

HENRY C. BOSTWICK,

By BATES GOLRICK & TEARE
Attorneys

Cleveland, Ohio,
November 18, 1939
ART.ML

178 Room No. 4897, Div. 15

Application: Henry C. Bostwick
Serial No. 145,241
Filed: May 28, 1937
For: Toggle Press
Last Office Action: Nov. 16, 1939

Commissioner of Patents
Washington, D. C.

Dear Sir:

Supplemental Oath

STATE OF OHIO:
County of Cuyahoga: ss.

Henry C. Bostwick, whose application for Letters Patent for an improvement in a Toggle Press, Serial No. 145,241, was filed in the United States Patent Office on or about the 28th day of May, 1937, being duly sworn, deposes and says that the subject matter of the Amendment attached hereto and filed herewith, and of all of the foregoing Amendments was part of his invention, was invented before he filed his original application, above identified for such invention, was not known or used before his invention, was not patented or described in a printed publication more than two years before his application, was not patented in a foreign country on an application filed by himself or his legal representatives or assigns more than twelve (12) months before his application, was not in public use or on sale in this country for more than two years before the date of his application, and has not been abandoned.

Affiant further states that the inclination between the slot 75 and the mold axis as shown in Fig. 2 of his drawing in the above entitled application, was intentionally inserted for the purpose of shifting one mold member laterally with reference to the other during the opening operation of the press to facilitate stripping of the tire from the mold, 179 and that the inclination was adopted after designing and abandoning a cam slot wherein the upper portion extended parallel to the axis of the mold member.

HENRY C BOSTWICK

Sworn to and subscribed to me this 18th day of November, 1939.

MARY E. LATHAM
Notary Public

Cleveland, Ohio
ART:lg
November 18, 1939

180 Endorsed: Mail Division Nov 25 1939 U. S. Patent Office

Endorsed: Docket Division Nov 27 1939 U. S. Patent Office

To the Commissioner of Patents,
Washington, D. C.

Sir:

The underisgned, The Akron Standard Mold Company assignee by assignment dated May 26, 1937, recorded May 28, 1937, in Liber X 170 Page 621 of Henry C. Bostwick applicant, who filed application Serial No. 145,241, on May 28, 1937, for a Toggle Press hereby appoints the firm of Bates, Teare & McBean, (Reg. No. 14,794), consisting of Albert H. Bates, Albert R. Teare and Robert H. McBean, of Cleveland, Ohio, his attorneys, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to sign the drawings, to receive the patent, and to transact all business in the Patent Office connected therewith.

The undersigned hereby revokes all former powers of attorney.

The undersigned hereby ratifies and confirms all actions heretofore taken in this case by Bates, Golrick & Teare.

Signed at Akron, in the County of Summit and State of Ohio, this 22nd day of November 1939.

THE AKRON STANDARD MOLD COMPANY
By A. J. FLEITER

President

Accepted Nov 29 1939

CONWAY P. COE
Commissioner

181 EEG Paper #15

Department of Commerce
United States Patent Office
Washington

November 30, 1939

Bates, Teare & McBean
1125 Terminal Tower Bldg.,
Cleveland, Ohio

Applicant Henry C. Bostwick
Serial No. 145,241
Filed May 28, 1937
For Toggle Press

Div. 15

In this case your power of attorney has been accepted.

Respectfully,
CONWAY P. COE
Commissioner

Revoking by assignee power of attorney to
Bates, Golrick & Teare
1125 Terminal Tower Bldg.,
Cleveland, Ohio.

182 Endorsed: Mailed Dec 28 1939

Div. 15 Rm 4897 REM:TP Paper No. 16

Department of Commerce
United States Patent Office
Washington, D. C.

On Appeal before the Board of Appeals

In re: application of HENRY C. BOSTWICK
Serial No. 145,241
Filed: May 28, 1937
For: Toggle Press

Bates, Teare & McBean for Applicant.

Examiner's Statement

This is an appeal from the final rejection of claims 22, 23, 26 and 27, claims 7, 16, 17, 20, 21, 24 and 25 having been allowed.

The finally rejected claims are:

22. In a press, the combination of a frame, an upper press head carried by the frame, and a lower press head movable with respect to the upper head, a pair of toggle members pivotally connected to the lower head and to the frame respectively, and each having an intermediate pivot, a screw shaft pivotally connected to one of the intermediate pivots, a motor pivotally supported on the frame, gearing operatively connecting the motor to the screw shaft, a system of linkage including a member connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle for connecting the intermediate pivots together so as to cause movement of them in timed relationship to the movement of the lower head, and guiding means for the lower head, said means including a cam slot in the frame and a member connected to the lower head and coacting with the cam slot in the frame to impart a shifting and tilting movement of the head during the opening and closing operation of the press.

23. In a press, the combination of a frame, an upper press head and a lower press head mounted for reciprocal and tilting movement within the frame, a pair of toggle devices operatively connecting the frame to the lower head, each of said toggles having an intermediate pivot thereon, a motor support having trunions journalled in the frame, a screw shaft journalled in the support, gearing operatively connecting the motor to the screw shaft, one end of the screw shaft being operatively connected to the intermediate pair of pivots of one of said toggle devices, guiding means on the frame for the lower head, said means including a roller on the head and a cam slot on the frame, the upper
183 portion of which slot is at an oblique angle to the
plane of separation of the mold members a system of linkage interconnecting the intermediate pivots of the toggles and including a link that is pivotally connected to the frame and also including a member connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle, the cam slot in the last-named member being adapted to produce movement of the intermediate toggle pivots in unison, during a part of the movement of the lower head, and to produce movement with relation to each other during another portion of the move-

ment of the lower head, consequent upon the opening and closing operation of the press.

26. In a press, the combination of a frame, a pair of mold members, toggles for moving one of the mold members with respect to the other, means for operating the toggles, guiding means in the frame for the toggles, said means including a cam slot in the frame, and a coacting roller on one of the toggles, said cam slot having the upper portion thereof inclined to the axis of the mold whereby one of the mold sections is shifted with reference to the other during that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness.

27. A method of stripping a pneumatic non-skid tire from a two-part vulcanizing mold after vulcanization, comprising shifting the mold parts obliquely relative to each other while a tire in said mold is in the path of oblique movement of said mold parts, then separating the mold parts while compressing the tire diametrically between diagonally opposite areas on the tread surface.

The invention relates to a toggle-operated tire-vulcanizing press. The press comprises an upper and a lower mold section. The upper section is capable of a slight straight-line movement with respect to the machine frame which supports it, while the lower section is pivotally connected to the upper ends of pairs of toggle links located adjacent the front and rear portions of the press. The lower ends of the lower toggle members are pivotally connected to the base portion of the machine frame. Connected to the pivots of the front pair of toggle links by means of a swivel block (30) is a threaded shaft, propelled and repelled through a train of gears by an electric motor to collapse
184 or straighten the toggles, thereby to open or close
the press. In order to synchronize the movements of the front and rear toggle pivots, applicant provides links connecting the two. These links are pivotally connected to the front toggle pivot and are provided with a cam slot in which the rear toggle pivot engages. The lower rear portions of these links are connected to the base by other links. The pivots connecting the upper rear toggle links with the lower rear portions of the lower mold section are provided with rollers (74) which engage in cam slots (75) formed in

the frame. In opening movement of the press, the rollers descend along the upper portions of the cam slots to cause the lower mold section to move away from the upper section substantially in a straight line. When the rollers near the lower ends of the cam slots, the latter provide a sudden change in direction which causes the lower mold section to tilt sharply so as to make the molded tire readily accessible for removal by the operator. The tire in the press is gripped by a ring from which depends a rod, having a roller at its lower end. In the opening movement of the press, an abutment (79) common to the upper links of the rear toggles engages this roller to raise the stem and thereby separate the tire from the lower mold section to which it adheres. The toggle links, cam slots and various levers and pivots are duplicated on both sides of the press. The front side of the press is that which faces the lefthand side of Fig. 2.

Claims 22, 23 and 26 are rejected on the ground of new matter since there is no basis in the original disclosure for the terms "shifting", in claim 22, line 16, "oblique angle", in claim 23, line 12, and the expressions "shifted", line 7,
and "that portion of the opening operation which
185 comes before the molds have separated a greater dis-
tance than half the tire thickness", line 8, of claim
26. All these quoted expressions are directed to the idea of having the upper portion of cam slots 75 inclined to the mold axis to provide a relative lateral shifting movement between the mold sections during the opening movement. Such relative lateral movement would cause the adhesion between the rubber of the tire and the metal of the mold to be broken, by reason of the tire being compressed between the lower rear portion of the lower mold section and the upper front portion of the upper mold section.

There is no statement in the original specification regarding the relative inclination of cam slot 75. In view of the fact that patent drawings are not made to scale, a slight apparent inclination between cam slot 75 and the line of separation of the mold sections is not sufficient foundation for applicant's recitation in these claims of the quoted expressions. Even if the illustrated inclination of the upper portion of cam slot 75 were as shown, it is so slight as to cause doubt whether the mere coaction of roller 74 with slot 75 would effect stripping of the tire from the mold without the aid of stripping ring 76. So far as appears from the original specification, applicant relied entirely upon members 76 to 79 to effect stripping, rather than the coaction of roller 74 and slot 75. The idea of stripping the tire by causing a relative lateral shifting movement of the mold sections during their opening movement appears to be wholly foreign to this application as originally filed.

Claim 27 is rejected because it contains new matter. There was no original claim drawn to a method of 186 stripping nor is the subject matter of this claim embraced within the scope of the original disclosure. The original disclosure leads one to believe that applicant effects his stripping by the coaction of roller 78 and abutment 79. The original specification says nothing about "*shifting* the mold parts *obliquely* etc.", nor is there any basis in the original specification for the latter portion of this claim beginning with "compressing", line 5.

Respectfully submitted,

B H ENKIN
Examiner, Div. 15.

187 Paper No. 17
33,419

Department of Commerce
United States Patent Office
Washington

January 13, 1940

Sir:

The case of Henry C. Bostwick Serial No. 145,241, will be heard by the Board of Appeals on the 6th day of June, 1940

The hearings will commence at 9.30 A. M. and as soon as the argument in one case is concluded the succeeding case will be taken up.

If any party, or his attorney, shall not appear when the case is called, his right to an oral hearing will be regarded as waived.

The time allowed for arguments is as follows:

Ex parte cases, thirty minutes;

Inter partes appeals: Interlocutory and final hearings when no testimony has been taken, thirty minutes each side;

final hearing when testimony has been taken, one hour each side.

By special leave, obtained before the argument is commenced, the time may be extended.

The appellant shall have the right to open and conclude in inter partes cases, and in such cases a full and fair opening must be made.

Briefs in inter partes appeals must be filed in accordance with the provisions of Rules 144 and 163, as amended.

Respectfully,
CONWAY P. COE
Commissioner of Patents.

To Messrs. Bates, Teare & McBean
1125 Terminal Tower Bldg.,
Cleveland, Ohio.

188 Endorsed: Board of Appeals Feb 10 1940 U. S. Patent Office

In the United States Patent Office

Before the Board of Appeals

In re application of
Henry C. Bostwick
Press
Serial No. 145,241
Filed May 28, 1937

Request to Advance Hearing

Hon. Commissioner of Patents
Washington, D. C.

Sir:

Request is hereby made to advance the hearing in the above entitled appeal to Feb. 12, 1940. The request is made for the reason that one of the claims embodied in the appeal corresponds with a count in a pending interference.

Respectfully,
BATES, TEARE & McBEAN
Attorneys for Henry C. Bostwick

Wash., D. C.
Feb. 10, 1940
ART:SA

189 Paper No. 19

Department of Commerce
United States Patent Office
Washington

February 10, 1940

Sir:

The case of Henry C. Bostwick Serial No. 145,241, will be heard by the Board of Appeals on the 12th day of February, 1940

The hearings will commence at 9.30 A. M. and as soon as the argument in one case is concluded the succeeding case will be taken up.

If any party, or his attorney, shall not appear when the case is called, his right to an oral hearing will be regarded as waived.

The time allowed for arguments is as follows:

Ex parte cases, thirty minutes;

Inter partes appeals: Interlocutory and final hearings when no testimony has been taken, thirty minutes each side; final hearing when testimony has been taken, one hour each side.

By special leave, obtained before the argument is commenced, the time may be extended.

The appellant shall have the right to open and conclude in inter partes cases, and in such cases a full and fair opening must be made.

Briefs in inter partes appeals must be filed in accordance with the provisions of Rules 144 and 163, as amended.

Respectfully,

CONWAY P. COE
Commissioner of Patents.

To Messrs. Bates, Teare & McBean
1125 Terminal Tower Bldg.,
Cleveland, Ohio.

190 Endorsed: Board of Appeals Feb 12 1940 U. S. Patent Office

In the United States Patent Office
Before the Board of Appeals

In re application of
Henry C. Bostwick
Serial No. 145,241
Filed May 28, 1937
For: Toggle Press

Brief in Behalf of Applicant

This is an appeal from the final rejection of claims 22, 23, 26 and 27, all of which have been rejected on the ground that they contain "new matter".

The invention relates to a tire vulcanizing press, wherein a top mold part is illustrated as having slight straight line movement, and a lower mold part is shown as being capable of movement *obliquely* to the upper mold part. The obliquity of movement is accomplished by a roller 74 on the lower mold part which moves in a cam slot 75, that is formed in the frame. The cam slot 75, as shown in Fig. 2, shows the upper portion thereof inclined to the axis of the mold, and it is such inclination which causes oblique movement of the mold parts relative to each other while a tire in the mold is in the path of the oblique movement of the mold parts, as specified in Claim 27. Continued opening of the press *inherently* compresses the tire diametrically between diagonally opposite areas on the tread surface as is also mentioned in Claim 27. The same oblique movement imparts a *shifting* of one mold part with reference to the other as is specified in Claim 22, and in Claim 26, and the *"oblique angle"* as is mentioned in Claim 23.

The Examiner's statement characterizes the upper portion of the cam slot as having such arrangement to cause the lower mold section to move away from the upper section "substantially in a straight line". At page 4,

191 The Examiner bases his rejection on *doubt* whether coaction of the roller 74 with the slot 75 would effect stripping of the tire from the mold without movement of the ring 76.

The assignee of the Bostwick application was the owner of an application to Carter, which is now involved in interference with other parties, wherein one of the counts is identical with Claim 27 in this application. The party Carter, notwithstanding the aforesaid assignment has a royalty interest on presses that may be made by the assignee under patents that may be granted on his application, and accordingly, to protect his interests, an assignment was made to a trustee, wherein the trustee was given the right to employ counsel to prosecute the interference, independently of counsel employed for prosecuting the Bostwick application.

The issue in the aforesaid interference is the *oblique movement of the mold parts to break the tread out of interlocking engagement with those portions of the mold which form the groove in the tread surface.* There are two counts in the interference, only one of which, however, has been added as Claim 27 to the Bostwick application, for the reason that the other is so limited that apparently it does not read upon the disclosure in the Bostwick application. Attention, however, is called to the fact that Claim 27 does not recite that the stripping of the tread surface from the mold must be employed *without the presence of any other device for acting upon the tire, at the completion of the vulcanizing operation.*

The Examiner erroneously has held that the stripping of the tire is caused by the ring 76 upon coaction of the roller 78 and the abutment 79. Such holding is obviously untenable, because the purpose of utilizing the ejector ring, which is operated by engagement of the roller 78 with the stop 79
is merely to lift the tire to a position where the oper-
192 ator can more conveniently remove it from the mold.

The issue in the interference is the *initial breaking of the tread surface from the mold parts by means of the oblique movement of the mold parts while the tire is in the mold cavity.*

The parties to the interference show different means for accomplishing this purpose, but in each instance, the oblique movement as in Bostwick commences at the start of the mold separating operation. A tire is fairly rigid, whereas the tread surface is flexible, and hence, the stripping of the tread from the mold parts is accomplished by only slight oblique movement of the mold parts.

Prior to the declaration of the interference, the applicant in Amendment C inserted in the specification the following:

> "As shown in Fig. 2, the upper portion of the slot 75 is inclined to the axis of the mold, and as a result, the first movement of the tilting action helps to break the connection between the tire and the mold."

Additionally, in Amendment C, Claim 26 was presented which claimed the subject matter as follows:

> "In a press having a frame, the combination of a pair of mold members, toggles for moving one of the mold members with respect to the other, means for operating the toggles, guiding means in the frame for the toggles, said means including a cam slot in the frame and a coacting pin on one of the toggles, said cam slot having a portion thereof inclined to the axis of the mold, whereby one of the mold sections is tilted with reference to the other during the opening operation, and whereby the tilting movement assists in breaking the connection between the tire and mold."

In the succeeding action, Paper No. 9, no objection was made to the insertion in the specification, and to the addition of Claim 26 as constituting new matter. Indeed, no objection should have been made, because the description and claim pertain to what is precisely shown in Fig. 2 of the drawings. The objection of new matter was not raised *until after the declaration of the aforesaid interference,* at which time the applicant copied one of the counts, as Claim 27 herein, applied the claim specifically to the applicant's structure, and requested the inclusion of the 193 present application in the interference. It was then for the first time that the Examiner, in Paper No. 11, objected to the introduction of Claim 22, 23, 26, and 27 as constituting new matter.

To offset the rejection based on new matter, applicant filed a Supplemental Oath under Rule 48, but upon adherence of the Examiner to his position, an appeal was taken to preserve the pendency of the application.

Rule 48 was specifically provided to permit the inclusion of subject matter *shown but not substantially embraced in the statement of invention or claim originally presented.* Such oath, we submit, should warrant a declaration of interference involving Claim 27 of this application, because the method set forth in that claim is *inherent in the operation of the press*

To amplify the information heretofore brought to the attention of the Examiner by Supplemental Oath under Rule 48, applicant files herewith two (2) additional affidavits, one executed by himself and one by Walter P. Voth, Vice President of applicant's assignee, which show that the press as built strips the tire by compressing it diametrically on diagonally opposite areas of the tread surface during the separation of the mold parts. The filing of those affidavits should not require the case to be remanded to the Primary Examiner, because they do not set forth new matter. They merely augment that which was set forth previously in the Supplemental Oath filed just prior to the taking of the appeal.

The first Supplemental Oath filed herein points out that before making the press as shown in the present application, the applicant employed a cam slot which did not extend obliquely to the axis of the mold, but which instead extended parallel to the axis of the mold. That construction, however, was abandoned because it did not operate to break the tread out of the mold. Thereupon, the upper portion of the slot was made *obliquely* to the mold axis, with the result that
the press operates to compress the tire diametrically
194 between diagonally opposite areas on the tread surface
during the separating movement of the mold to strip the tread from the mold.

The press is electrically operated and, hence, the operation of it inherently carries out the method of Claim 27. Timing devices that are customary in this art operate to effect a complete cycle of closing, vulcanizing and opening, without any attention from an operator except to press the button which initiates the performance of the cycle.

It must be obvious that if the applicant should file a continuing application using precisely the same drawings as are in the present application, and using the terminology which has been inserted by amendment pursuant to the provisions of Rule 48, there could be no ground for denying the right of the applicant to be included in the interference with the other parties. The invention, however, is in the press, because the method of stripping a tire as defined by Claim 27 results automatically from the operation of the press. There is nothing which anyone can do to alter the method after the press is set in motion. Accordingly, if the applicant be denied the right to contest the interference on the basis of the present application, modified as it is with an affidavit under Rule 48, he would not be entitled to prosecute the interference under a continuing application. This would result in the granting of a patent to another party who would then have the right to prosecute an action for infringement against the maker, seller or user of the Bostwick press. The defendant would then be left to his remedy of defending the action by showing that Bostwick was in fact the first inventor. Such issue can and should be tried in the first instance in the Patent Office, where the other parties to the interference will be given an opportunity to contest Bostwick's right to make the claim under the rules in such cases made and provided.

195 The appeal includes assignment of error by the Examiner in rejecting Claims 16, 17, 21 and 24 as being indefinite and functional, and as assigns error in rejecting Claims 22, 23, and 26 on Brundage, but apparently the amendment filed simultaneously with the appeal was regarded as sufficient to overcome such rejections, because the Examiner's statement makes no mention of such grounds of rejection. It is assumed, therefore, that the rejection of Claims 22, 23, 26 and 27 is based solely upon the allegation of new matter.

Respectfully submitted,

BATES, TEARE & McBEAN
Attorneys for Henry C. Bostwick

Cleveland, Ohio
February 10, 1940
ART:lg

196 Endorsed: Board of Appeals Feb 12 1940 U. S. Patent Office

In the United States Patent Office

Div. 15, Room 4897

In re Application of Henry C. Bostwick
Serial No. 145,241
Filed May 28, 1937
Toggle Press

Affidavit of Walter P. Voth

STATE OF OHIO
County of Cuyahoga: ss.

Walter P. Voth, being duly sworn, deposes and says that he is the Vice President of The Akron Standard Mold Company, assignee of the above entitled application of Henry C. Bostwick, that he has seen the photographs attached to the affidavit of Henry C. Bostwick executed February 10, 1940, and marked Exhibit A and B, that said photographs accurately represent presses which have been made and sold by the Akron Standard Mold Company, that he has seen said presses operate to vulcanize tires, and that upon opening of the press the lower mold part moves obliquely to the upper mold part and compresses the tire diametrically between diagonally opposite areas on the tread surface to strip the tire from the upper mold part during separation of the mold parts.

WALTER P. VOTH

Sworn to and subscribed before me this 10th day of February, 1940.

JACK I. BARNBY,
Notary Public

My Commission Expires Mar. 26, 1941

Cleveland, Ohio
ART:lg
February 10, 1940

197 In the United States Patent Office

Div. 15, Room 4897

In re: Application
of Henry C. Bostwick
Serial No. 145,241
Filed: May 28, 1937
Toggle Press

Supplemental Oath

State of Ohio
County of Cuyahoga: ss.

Henry C. Bostwick being duly sworn, deposes and says that he is the applicant who is named in the above entitled application, that he has made presses constructed in accordance with the drawings which form part of the above entitled application, that the attached photographs, marked Exhibit A and B, show one of said presses, Exhibit A illustrating the press in partially open condition, and Exhibit B illustrating the press in fully opened position.

Affiant further states that said presses utilize a cam slot inclined to the axis of the mold, as shown in Fig. 2 of the drawings of the aforesaid application, and that such inclination causes an oblique movement of the mold parts which results in a compression of the tire diametrically between diagonally opposite areas on the tread surface to strip the tire from the upper mold part during the separation of the mold parts. The method of stripping by said oblique movement is inherent in the operation of the press.

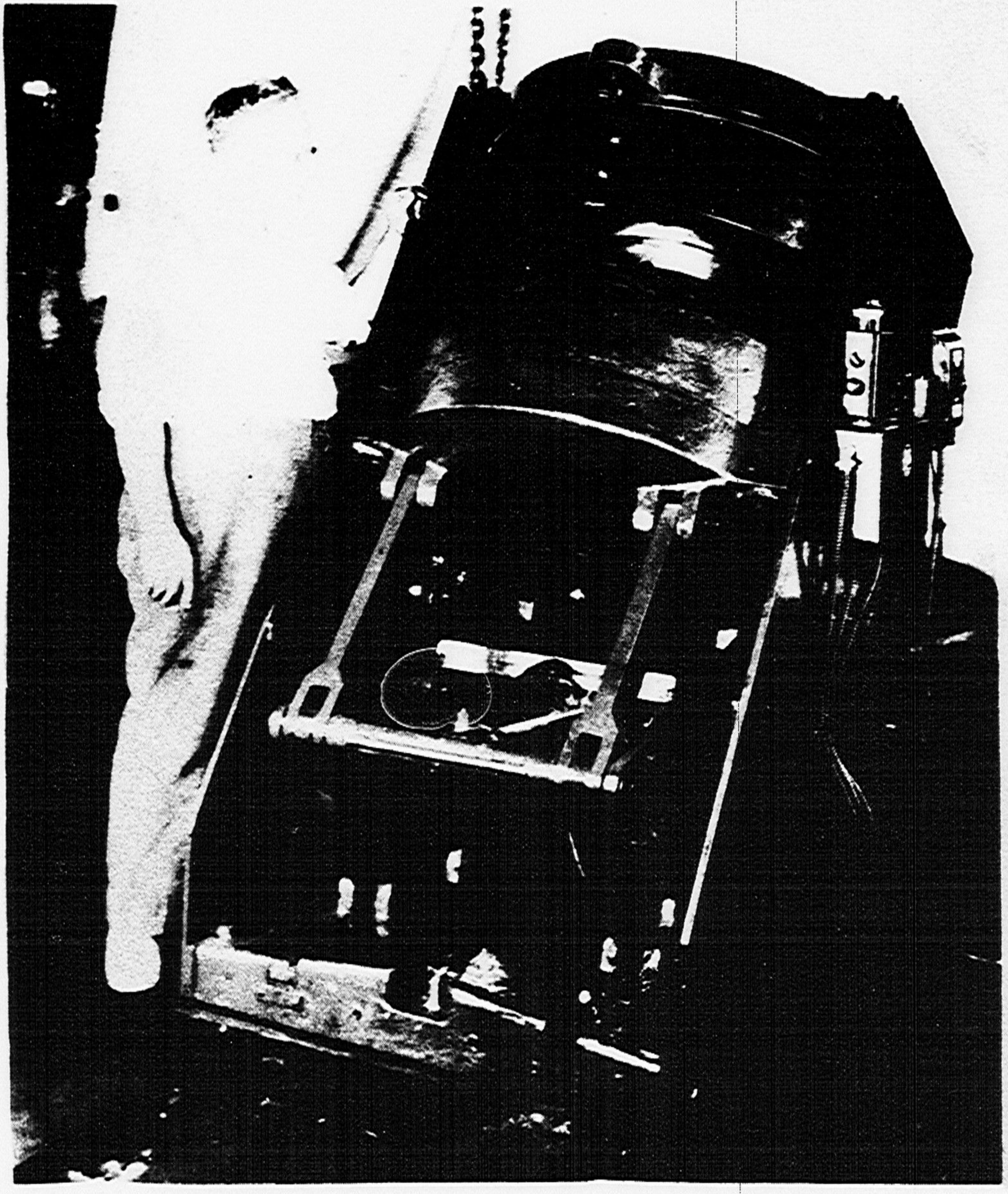
HENRY C. BOSTWICK

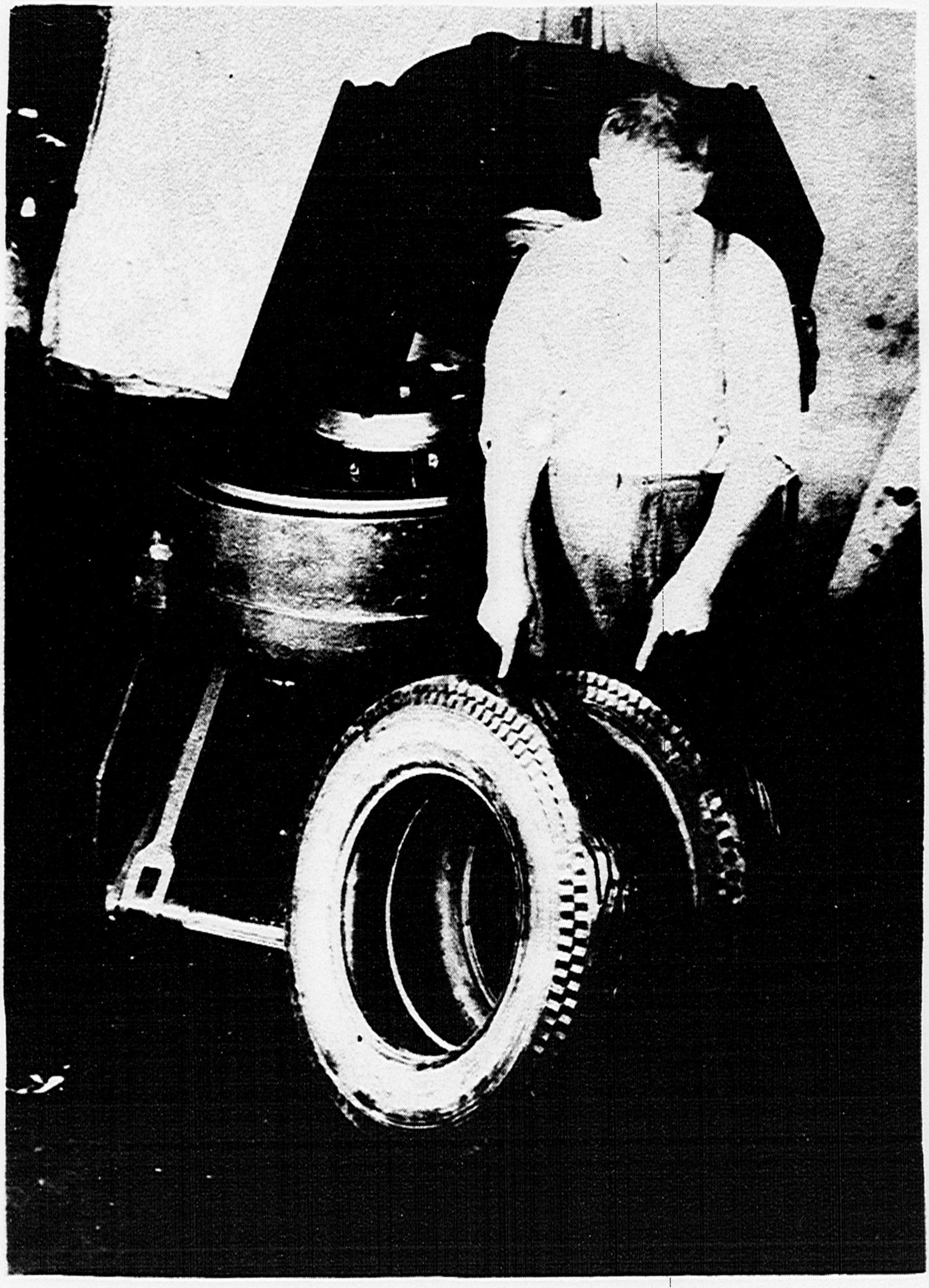
Sworn to and subscribed before me this 10th day of February, 1940.

JACK I. BARNBY
Notary Public

My Commission Expires Mar. 26, 1941

Cleveland, Ohio
ART:lg
February 10, 1940





200 Endorsed: U. S. Patent Office Board of Appeals Mar 2-1940 Mailed

Appeal No. 33,419 MMS
Hearing:
February 12, 1940

In the United States Patent Office

Before the Board of Appeals

Ex parte Henry C. Bostwick

Application for Patent filed May 28, 1937, Serial No. 145,241. Toggle Press.

Messrs. Bates, Teare & McBean for applicant.

The applicant has appealed from the action of the examiner finally rejecting claims 22, 23, 26 and 27.

Claim 22 may be taken as an example.

22. In a press, the combination of a frame, an upper press head carried by the frame, and a lower press head movable with respect to the upper head, a pair of toggle members pivotally connected to the lower head and to the frame respectively, and each having an intermediate pivot, a screw shaft pivotally connected to one of the intermediate pivots, a motor pivotally supported on the frame, gearing operatively connecting the motor to the screw shaft, a system of linkage including a member connected to the knuckle of one toggle and having a cam slot coacting with the knuckle of the other toggle for connecting the intermediate pivots together so as to cause movement of them in timed relationship to the movement of the lower head, and guiding means for the lower head, said means including a cam slot in the frame and a member connected to the lower head and coacting with the cam slot in the frame to impart a shifting and tilting movement of the head during the opening and closing operation of the press.

201 The disclosure relates to molding and vulcanizing presses, particularly those wherein the mating mold sections are relatively movable and where one of the sections is tiltable with reference to the other to facilitate the insertion and withdrawal of an article, the article illustrated in the drawing being a tire casing. The mold sections and the operating mechanism therefor are shown in Fig. 2 of the

drawing in which the lower section 15 is moved downwardly into the position shown in dotted lines for removing the article. This moving mechanism is operated by a motor shown at 35.

The claims have been rejected on the ground that they involve new matter. The examiner points out that there is no basis in the original disclosure for the term, "shifting", in claim 22, line 16, for the term, "oblique angle", in claim 23, line 12 and the expressions, "shifted", in line 7 of claim 26 and "that portion of the opening operation which comes before the molds have separated a greater distance than half the tire thickness", in line 8 of claim 26. The examiner points out that all of these quoted expressions are directed to the idea of having the upper portion of cam slots 75 inclined to the mold axis to provide a relative lateral shifting movement between the mold sections during the opening movement. The examiner pointed out that such relative lateral movement is supposed to cause adhesion between the rubber of the tire and the metal of the mold to be broken by reason of the tire being compressed between the lower rear portion of the lower mold and the upper front portion of the upper front section.

The examiner further points out that there is no statement in the original specification regarding the rela-
202 tive inclination of cam slot 75 and that even if the illustrated inclination of cam slot 75 were as shown, it is so slight as to cause doubt whether the mere coaction of roller 74 with slot 75 would effect stripping of the tire from the mold without the aid of the stripping ring 76. The examiner further points out that so far as appears from the original specification, applicant relied entirely upon the members 76 to 79 to effect stripping rather than the coaction of roller 74 and slot 75.

Claim 27 has also been rejected on the ground that it contains new matter for the reasons set out at the end of the examiner's statement.

Appellant points out that the assignee of this application of Bostwick was the owner of an application to Carter, the Carter application being now involved in interference with other parties and that one of the counts of that interference is identical with claim 27 here on appeal, that the party Carter, notwithstanding the assignment, has a royalty interest on presses that may be made by the assignee under patents that may be granted on his application and to protect his interests has made an assignment to a trustee, the trustee being given the right to employ counsel to prosecute the interference.

It is further stated by appellant that the issue in the interference is the oblique movement of the mold parts to break the tread out of interlocking engagement with those portions of the mold which form the groove in the tread. Appellant gives a detailed statement in his brief as to what may happen in case he is not permitted to make these claims in the present application.

203 It is not seen where the Patent Office can do anything but consider the claims here on appeal on their merits. Appellant seems to concede that there is no description of this particular structure objected to by the examiner to support the appealed claims and it is believed that the examiner's position that the inclination of the upper portion of the cam slot 75 is so slight as to cause doubt whether the coaction of the slot 75 and roller 74 would effect stripping of the tire from the mold is sound.

For the reasons indicated, the decision of the examiner is affirmed.

Board of Appeals

EUGENE LANDERS
Examiner-in-Chief
F. EDINBURG
Examiner-in-Chief
E. T. MORGAN
Examiner-in-Chief

March 2, 1940

Messrs. Bates, Teare & McBean,
1125 Terminal Tower Bldg.,
Cleveland, Ohio

204 Endorsed: Mar 14 1940

Department of Commerce
United States Patent Office
Washington

To the Primary Examiner in charge of
Application Serial No. 145,241
Filed by Henry C. Bostwick
on May 28, 1937

You are informed that a motion under Rule 109 involving the above entitled application has been filed in Interference No. 77,589. See order No. 3244.

H. H. JACOBS
Examiner of Interferences,
Room 3718.

205 Department of Commerce
United States Patent Office
Washington

Ex parte Henry C. Bostwick,
Serial No. 145,241,
Filed May 28, 1937,
Toggle Press.

Notice of Civil Action Under Section 4915 R. S.

A civil action under Section 4915 R. S., entitled THE AKRON STANDARD MOLD COMPANY and HENRY C. BOSTWICK v. CONWAY P. COE, COMMISSIONER OF PATENTS, Civil Action No. 6629, involving this application, was filed on April 17, 1940, in the District Court of the United States for the District of Columbia.

W. W. COCHRAN
Attorney for the Commissioner.

April 17, 1940.

* * *

ESTIMATE FOR COPIES

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481

5/20/37

1937

CONTENTS

1. Application .... papers.
2. PHOTO COPY June 3, 1937
3. Rejection JUL 28 1937
Amdt A Sept 29, 1937
5. Ref. Jan. 14 1938
Amdt B Mar 12, 1938
7. [illegible]ection JUL 23 1938
Amdt C Jan 21, 1939
Rejection Cti. MAY 20 1939
9. Amdt. D ent Nov 9. 1939
Letter NOV 16 1939
Appeal to Board Nov 20, 1939
Letter & Amdt E not ent Nov 28, 1939
Rev. & Power of Atty. by Assignee Nov. 25/39
Notice of Rev. & Acceptance NOV 30 1939
Examiner's Statement DEC 23 1939
7. Hearing June 6. 1940
Req. to Advance Hearing Feb 10/40
9. Hearing adv. to Feb 12-1940
0. Brief Feb 12, 1940
1. Affdt Feb 12, 1940
2. √ [illegible] MAR -2 1940 aff
3. Notice of Civil Action under Sec. 4915 R.S April 17-1940.
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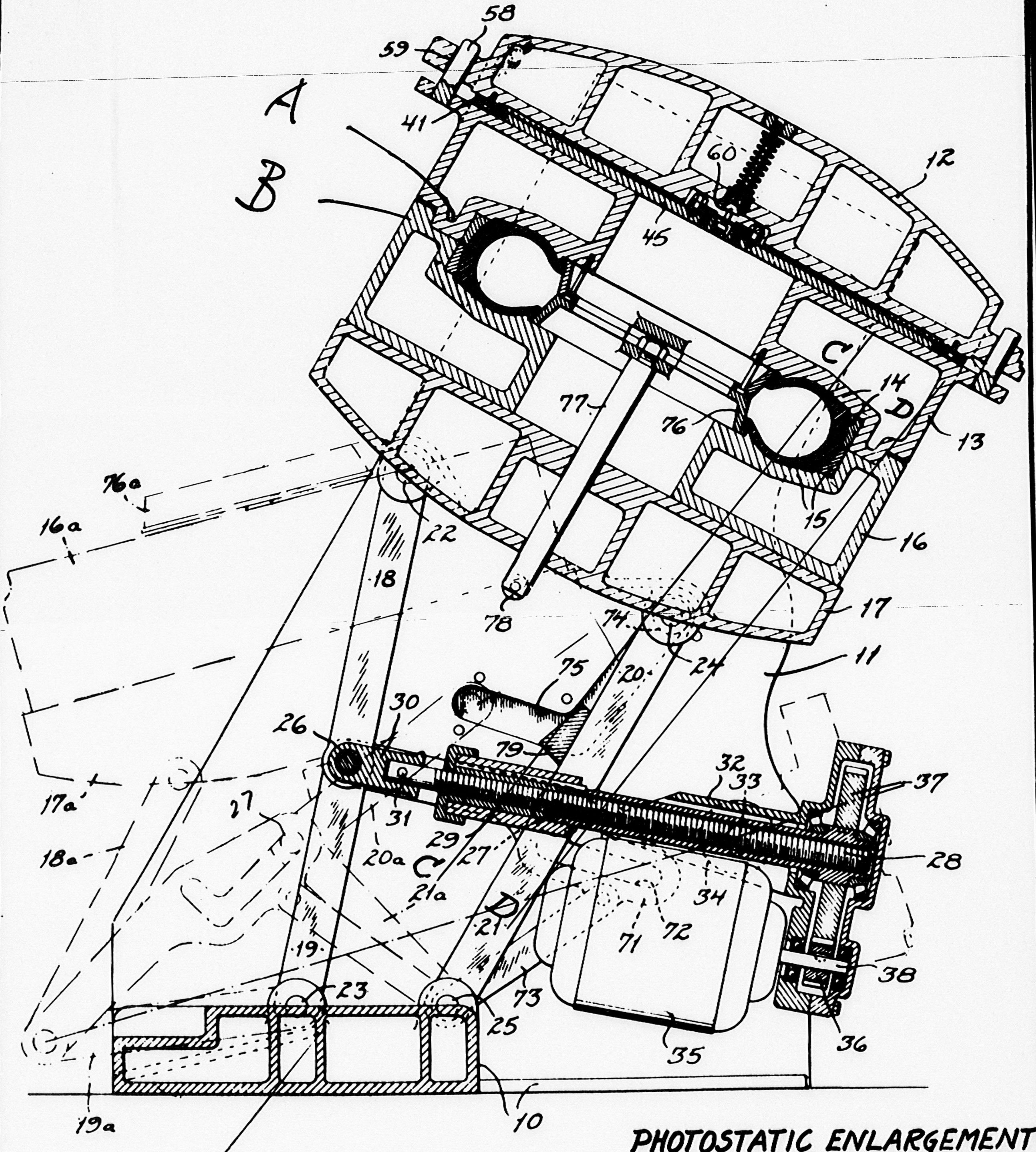
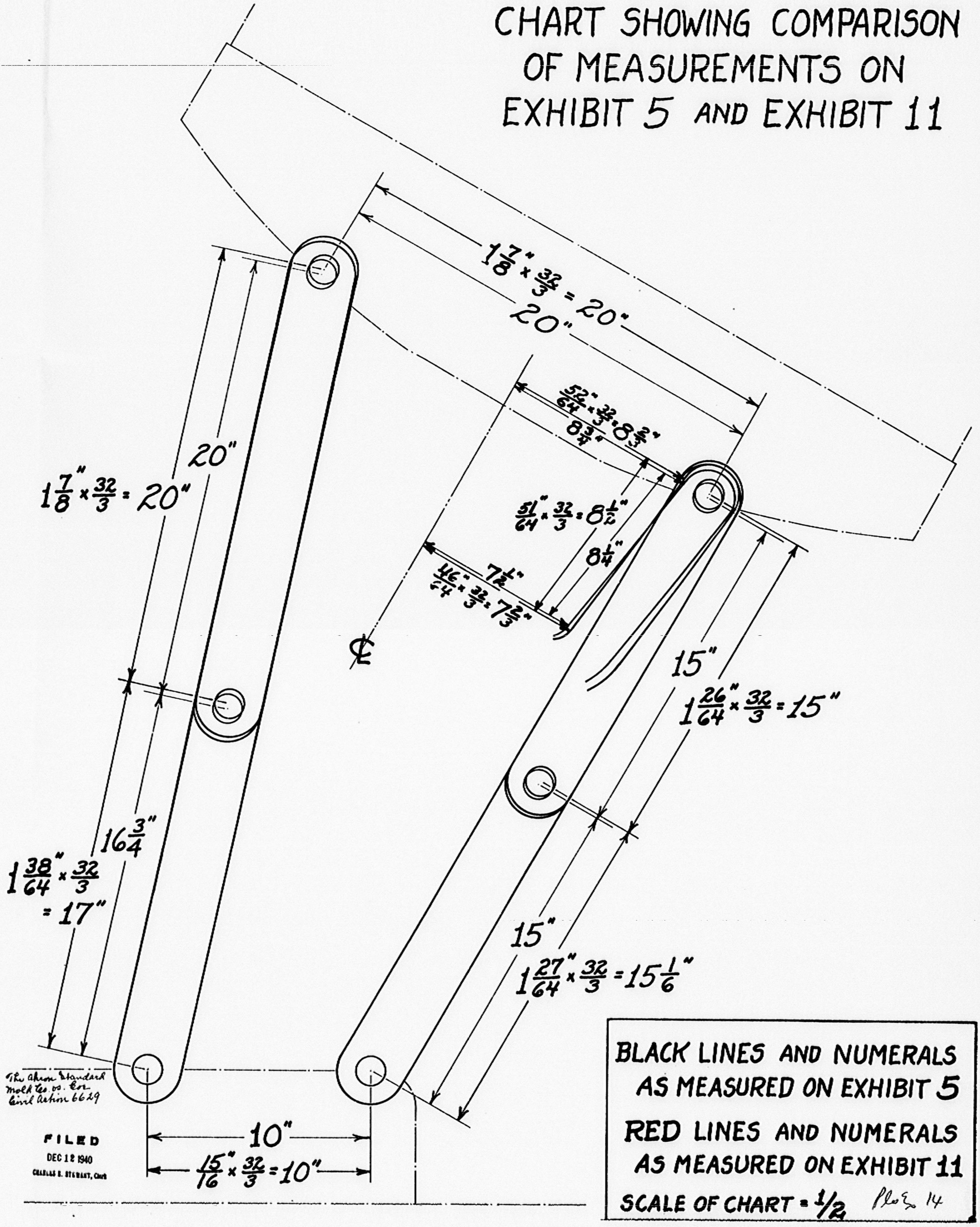


FIG. 2

PHOTOSTATIC ENLARGEMENT
OF EXHIBIT 11
TO SAME SCALE AS EXHIBIT 5

The Akron Standard
Mold Co. v. Cox
Civil Action 6629

CHART SHOWING COMPARISON OF MEASUREMENTS ON EXHIBIT 5 AND EXHIBIT 11



The Akron Standard Mold Co. vs. Coe
Civil Action 6629

FILED
DEC 12 1940
CHARLES B. STEWART, Clerk

BLACK LINES AND NUMERALS AS MEASURED ON EXHIBIT 5

RED LINES AND NUMERALS AS MEASURED ON EXHIBIT 11

SCALE OF CHART = 1/2 Pl. Ex. 14

223 Endorsed: United States Court of Appeals for the District of Columbia Filed Jan 21 1941 Joseph W. Stewart, Clerk.

United States Court of Appeals for the District of Columbia
Appeal No. 7806

THE AKRON STANDARD MOLD CO. AND HENRY C. BOSTWICK,
Appellants

vs.

CONWAY P. COE, Commissioner of Patents, *Appellee.*

Stipulation

It is hereby stipulated by and between counsel to the above entitled cause that the record in this case be printed as filed but that pages 208 to 221 inclusive be omitted since these pages are duplicates of matter appearing elsewhere in the record.

DONALD A. GARDINER
Attorney for Appellants
W. W. COCHRAN
Attorney for Appellee

Wash., D. C.
Jan. 18, 1941
DAG:SA

Endorsed on cover: No. 7806. The Akron Standard Mold Company et al., Appellants, vs. Conway P. Coe, Commissioner of Patents. United States Court of Appeals for the District of Columbia Filed Jan 10 1941 Joseph W. Stewart, Clerk.